



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAVAL AIR STATION
700 AVENGER AVENUE
LEMOORE, CALIFORNIA 93246-5001

IN REPLY REFER TO:

NASLEMINST 5090.5A
N45L

DEC 27 2000

NAS LEMOORE INSTRUCTION 5090.5A

From: Commanding Officer, Naval Air Station, Lemoore

Subj: OIL SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC)
PLAN

Ref: (a) 40 CFR 112; EPA Regulations on Oil Pollution Prevention
(b) Federal Water Pollution Control Act (Clean Water Act)
(c) OPNAVINST 5090.1B
(d) NASLEMINST 5090.3A
(e) COMNAVBASESANDIEGOINST 5090.1B (NOTAL)

Encl: (1) NAS Lemoore Spill Prevention Control and Countermeasures
(SPCC) Plan

1. Purpose. To provide a triennial update for the SPCC Plan as required by reference (a). The SPCC Plan indicates containment procedures and equipment to prevent oil spills into or upon waterway or shoreline of the United States.

2. Cancellation. NASLEMINST 5090.5

3. Background. References (a) through (c) require Naval activities to prevent discharges of oil into navigable waters of the United States and to contain such discharges if they occur. The references also require SPCC Plans be prepared for facilities storing more than 660 gallons of oil in a single aboveground tank or underground storage capacity of 42,000 gallons or more. In the event of an oil spill incident, spill notification and cleanup responsibilities are identified in references (d) and (e).

4. Responsibility. Enclosure (1) identifies specific oil spill prevention requirements for Naval Air Station Lemoore which will be jointly accomplished by the affected department, divisions and tenant commands described in the enclosure. In summary, these requirements include:

a. Provide containment structures around aboveground tanks larger than 660 gallons.

DEC 27 2000

b. Provide corrosion protection on underground tanks and piping.

c. Provide corrosion protection on all oil piping facilities.

d. Provide inspection and complete monitoring reports involving oil storage and piping facilities.

e. Provide appropriate training pertaining to spill prevention procedures.

f. Provide and maintain necessary spill cleanup equipment and spill kits in buildings and work locations under their responsibility.

5. Action

a. This SPCC Plan has this command's full support and approval, which includes providing all necessary resources of manpower, equipment, and material required to expeditiously control and remove any harmful quantity of oil discharged as required by reference (a).

b. The Public Works Department, Environmental Office shall maintain the original copy of enclosure (1) and be responsible for review and updating of the document within prescribed time frames.



JOHN V. STIVERS

Distribution: (NASLEMINST 5215.2W)
Lists A and C

SPILL PREVENTION CONTROL & COUNTERMEASURES (SPCC) PLAN

(Revision 1)



October 2000

Prepared by

Environmental Office
Naval Air Station Lemoore, CA 93246-5001

TABLE OF CONTENTS

CERTIFICATION	i
PLAN REVIEW AND AMENDMENTS	ii
CERTIFICATION OF APPROVAL AND COMMITMENT	iv
EXECUTIVE SUMMARY.....	v
1.0 INTRODUCTION	1
2.0 DEFINITION.....	1
3.0 STATION DESCRIPTION	1
3.1 Location	2
3.2 Surface Water Conditions	2
3.3 Oil Storage Facilities.....	2
3.4 Aboveground Storage Tanks	2
3.5 Underground Storage Tanks.....	3
4.0 SPILL HISTORY.....	3
5.0 SPILL PREDICTION	3
5.1 Tank Filling.....	3
5.2 Tank Rupture.....	3
5.3 Equipment Failure	5
5.4 Pipeline Failure	5
5.5 Human Error.....	5
5.6 Transporting Oil.....	5
5.7 Other Operations	5
6.0 SPILL PATHWAYS.....	5
7.0 SECONDARY CONTAINMENT	6
8.0 CONTINGENCY PLAN	6
9.0 FACILITY DRAINAGE.....	6
9.1 Diked Areas.....	6
9.2 Undiked Areas.....	7
10.0 BULK STORAGE TANKS	7
11.0 FACILITY LOADING/UNLOADING OPERATIONS	8
11.1 Truck Filling Inspection Procedures	8
11.2 Loading/Unloading Rack Operating Procedures	8
12.0 BASE OPERATIONS AND TANK FACILITIES	9

12.1	Fuel Farm Activity	9
12.2	Hot Refueling Pad	11
12.3.	Navy Exchange Gas Station	13
12.4.	Transportation Branch.....	14
12.5.	HAZARDOUS Waste Facility	15
12.6	Auto Hobby Shop.....	16
12.7	Construction Battalion Unit (CBU-406).....	18
13.0	RESPONSE PLAN	18
13.1	Emergency Notification Procedures.....	19
13.2	Cleanup and Disposal.....	19
13.3	Spill Response Resources.....	19
13.4	Major Spill Cleanups.....	20
13.5	Minor Spill Cleanups	20
13.6	Spill Reporting	21
14.0	TANK TESTING AND INSPECTIONS.....	21
15.0	RECORD KEEPING	21
16.0	SECURITY	22
16.1	Equipment Security	22
16.2	Station Security	22
17.0	TRAINING	22
17.1	Fuel Branch Personnel	22
17.2	Station Personnel.....	22

ANNEX A: ACRONYMS

ANNEX B: INSPECTION CHECKLIST

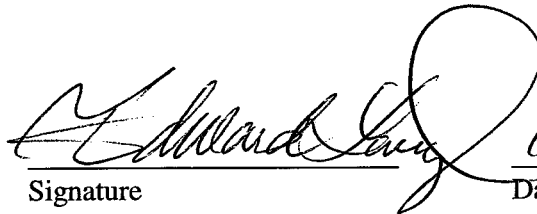
ANNEX C: STORAGE TANK INVENTORY

ANNEX D: AST & UST SPILL PATHWAYS

ANNEX E: NAS LEMOORE LOCATION MAPS

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR 112, and attest that this spill prevention, control and countermeasure plan has been prepared in accordance with good engineering practices. Adherence to the Plan is the responsibility of Naval Air Station and the individual areas.

 10, 6/2000
Signature Date



Name: Edward Long
Registered Professional Engineer
State: Georgia

Registration Number: 22567

PLAN REVIEW AND AMENDMENTS

This SPCC Plan must be reviewed and/or amended under the following circumstances:

- **TRIENNIAL REVIEW.** 40 CFR 112.5(b) requires the Plan to be reviewed and evaluated at least every three years and, if necessary, amended within six months of such review;
- **CHANGE AT THE FACILITY.** 40 CFR 112.5(a) requires that the Plan to be amended when a change at the facility materially affects the potential to discharge oil to navigable waters; and
- **AMENDMENT REQUESTED BY U.S. EPA.** When U.S. EPA requires an amendment to the SPCC Plan, NAS Lemoore will be notified by certified mail or by personal delivery. Within 30 days from receipt of this notice, NAS Lemoore may submit written information, view, and arguments on the proposed amendment requirement. After considering all materials submitted, the U.S. EPA will notify NAS Lemoore of the amendment required or will rescind the notice. The amendment required becomes a part of the SPCC Plan 30 days after such notice, unless NAS Lemoore appeals. The amendment must be implemented not later than six months after the amendment becomes a part of the SPCC Plan (40 CFR 112.4(e)).

This Plan should be reviewed by the NAS Lemoore Environmental Site Manager (ESM) whenever there is a spill or discharge of oil or hazardous substance in harmful quantities. The purpose of this review is to determine the adequacy of this plan to prevent similar spills or discharges in the future. This review should take into consideration:

- The cause of such spill, including a failure analysis of the system or subsystem in which the failure occurred. The failure analysis should examine and explain the reason for the failure resulting in the spill event;
- The corrective actions and/or countermeasures taken, including equipment repairs and spill cleanup; and
- Additional preventive measures taken or contemplated minimize the possibility of recurrence.

In addition, ESM is responsible for reviewing all construction projects to determine if amendment of the SPCC Plan is required. If the Plan must be amended, the ESM is responsible for having the Plan amended or for seeing that amendments are implemented.

All reviews and amendments to this plan must be recorded in the Record of Review and Amendment Form. The NAS Lemoore Environmental Site Manager (ESM) will be responsible for maintaining the definitive copy of this plan.

Record of Review and Amendment Form

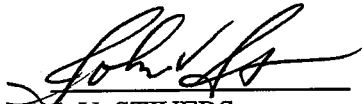
Date	Professional Engineer	Section	Amendments

CERTIFICATION OF APPROVAL AND COMMITMENT

In compliance with the oil pollution prevention regulations contained in 40 CFR 112, Naval Air Station, Lemoore, California implements the following Spill Prevention Control and Countermeasures (SPCC) Plan.

The SPCC Plan will be kept on file at Naval Air Station Lemoore and will be open for inspection upon request of any authorized representatives of the U.S. Environmental Protection Agency (EPA), the California EPA, or the California State Water Resources Control Board.

This SPCC Plan has my full support and approval, which includes providing all necessary resources of manpower, equipment, and materials required to expeditiously control and remove any harmful quantity of oil discharged as required by 40 CFR 112.7 (d)(2).


J. V. STIVERS
Captain, U.S. Navy
Commanding Officer

Date: 28 Nov 2000

EXECUTIVE SUMMARY

This document is the second triennial update of the Spill Prevention Control and Countermeasures (SPCC) Plan for Naval Air Station Lemoore to satisfy 40 CFR 112.5 provisions. The first triennial review and evaluation was performed in 1997 and no revision was needed at that time. The purpose of this update is to provide current status and oil spill prevention measures for facilities at NAS Lemoore which potentially discharge oil.

The SPCC Plan addresses the following:

- Existing facilities located at NAS Lemoore that have the potential for an oil spill;
- Existing containment and diversionary structures constructed to control oil spill occurrences;
- A conformance evaluation of existing facilities compliance relative to SPCC guidelines;
- Responsibilities for record keeping, inspections, personnel training, security, and notifications relative to plan implementation; and
- Operational changes implemented, and projects submitted for facility modifications required reducing the probability of a spill event.

Potential sources of spills include tank or piping failures, tank overflow due to overfilling and accidental rupturing of drums or other containers. Spills from these operations rarely exceed 10 to 15 gallons. However, an undetected tank failure or mechanical rupture during filling operations could result in a spill of 1,000 gallons or more at some sites. The fuel trucks traveling within the station boundaries pose a spill hazard, not associated with any one facility. A traffic mishap involving one of these vehicles could result in a spill up to 5,000 gallons.

Other facilities, not specifically described in the site-specific SPCC reviews, may pose a limited spill potential. These facilities include individual fuel oil heaters, standby generators, maintenance activities that handle oils, fuel tanks for pumps or other engines, and warehouses or compounds where petroleum products are stored. Spills from these sources would typically be limited to individual 5 gallon or 55 gallon containers.

1.0 INTRODUCTION

In accordance with Title 40 Code of Federal Regulations (40 CFR) Part 112, owners and operators of non-transportation related facilities with the potential to discharge oil in harmful quantities are required to prepare and implement a SPCC Plan. The Plan shall be evaluated every three years and amended within 6 months whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential discharge of oil. The Plan is required to be certified by a registered Professional Engineer.

SPCC Plan outlines what actions will be taken by designated personnel in the event of a spill and administrative controls in place to prevent a spill. Regulated facilities include those that store, collect, and/or transfer oil products.

The California Aboveground Storage Tank Act enacted in 1989 requires owners and operators of aboveground storage tank (AST) to comply with federal spill prevention regulations and in certain circumstances implement a groundwater monitoring system. California accepts SPCC Plans prepared in accordance with Federal Regulations. This SPCC Plan includes handling, storage, and transfer operations of petroleum products associated ASTs, underground storage tanks (USTs), Oil Water Separators (OWS), petroleum storage, and waste oil.

Review and evaluation of this SPCC Plan involved inspections of oil storage and handling systems at NAS Lemoore and interviews with facility personnel. Inspections and interviews were conducted to verify and establish proper procedures to prevent oil spills and to respond to any spills that may occurs.

2.0 DEFINITION

Facility, as given in regulations and guidance documents used to prepare this SPCC, is interpreted to mean NAS Lemoore. However, Navy personnel refer to many areas within NAS Lemoore as facilities. Therefore, in order to prevent confusion, NAS Lemoore is referred to as an "installation" or "station" within this SPCC. The individual SPCC sites within NAS Lemoore are referred to as sites, facilities, areas, activities, and plants.

Navigable waters are any watercourses on or near Lemoore Naval Air Station.

Oil is defined in 40 CFR Part 112.2(a) as oil in any form, including, but not limited to petroleum products, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

Spill shall refer to any unauthorized release, intentional or unintentional, of any petroleum product or waste and as used in 40 CFR 112.

3.0 STATION DESCRIPTION

3.1 LOCATION

Naval Air Station (NAS) Lemoore is located in Kings County, California, approximately 45 miles southwest of Fresno, California. Annex E-1 and E-2 show the regional and local location of NAS Lemoore, respectively. The air station was commissioned 8 July 1961 and base housing, administrative facilities, and the flight training areas began operation in that year.

3.2 SURFACE WATER CONDITIONS

Surface drainage and storm water at the facility lead to three open drainage ditches. Two are located in the operations (OPS) area and one in the administration (ADMIN) area. Annex E-3 shows the location of these drainage areas. The northernmost drainage ditch in the OPS area is confined within the station's boundaries and flows into a wildlife/wetlands area at the north end of the facility. A second ditch in the OPS area traverses west to east along the OPS southern boundary and flows into the Kings River. Surface drainage in the ADMIN area flows into a drainage ditch and collects in the storm wet well pump station. The water can either be pumped to the wastewater treatment evaporation ponds or Kings River.

The wildlife/wetlands area harbors a diversity of plant and animal species. Spills that enter the drainage canal leading to this area could significantly threaten the ecology, livestock, and wildlife. Spills entering the Kings River could also threaten valuable natural resources in and around this riparian habitat.

Spills impacting local groundwater may also threaten the quality of navigable or other waters. A perched groundwater aquifer, as well as deeper groundwater aquifers, may provide a path for contaminant migration to navigable waters and agricultural irrigation sources.

The potential impacts of a spill depend on numerous factors, including:

- Quantity and type of substance spilled;
- Adequacy of spill containment systems;
- Success of spill contingency plans for cleaning up and containing the spill; and
- Weather conditions at the time of the spill.

3.3 OIL STORAGE FACILITIES

NAS Lemoore has ASTs, USTs, and oil water separators at various facilities. In addition there are also a few ASTs with 250 to 5,000 gallons capacity, which are used for waste/recyclable oil product. The facilities at which oil is handled in large quantities are discussed in the "Tank Facilities and Operations" section. A few of the ASTs contain fuel that is used for standby generators and agricultural pumps at various locations. The tank inventory in Annex C includes the fuel tanks associated with this equipment. Station owned tanks are filled by Facility Management Airfield Support Department Transportation Branch. Agricultural tanks are owned and operated by agricultural land lessees. Most ASTs used to supply fuel for the standby equipment are filled as needed, but usually no more than twice a year. Locations of the ASTs are indicated in site maps in Annex E.

3.4 ABOVEGROUND STORAGE TANKS

A total of 43 ASTs with a total of 38,075 gallons are owned by NAS Lemoore at various locations. Five

tanks owned by contractors with a total capacity of 1,780 gallons are listed in NAS Lemoore tank listing. Six ASTs owned by farmers located on the leased land with an aggregate capacity of 21,000 gallons are not included in the NAS Lemoore listing.

3.5 UNDERGROUND STORAGE TANKS

The station has a total of 25 USTs at various locations. The USTs are compatible with material stored in them. USTs on station are constructed of either steel or fiberglass. Locations are indicated in Annex E site maps.

4.0 SPILL HISTORY

NAS Lemoore had no spill events in the last 12 months. A spill event means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, which are defined as:

- Discharges of oil that violate applicable water quality standards; or
- Discharges of oil that cause a film or sheen upon discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

If a spill event occurs in the future, information pertaining to each discharge event will be recorded in Table 4.0.

5.0 SPILL PREDICTION

The following summarizes the potential spill sources from AST, UST and OWS facilities:

5.1 TANK FILLING

Tanks are filled from tanker trucks that transport oil products to the station or from trucks operated by the Fuel Facility. The potential for spills exists during filling activities because of human error or equipment failure, such as overfilling of tanks. The maximum spilled material would be approximately 5,000 gallons, which is the largest capacity compartment of the tanker trucks.

5.2 TANK RUPTURE

A release could occur because of tank leak or rupture. In the event of a tank failure, the maximum amount of spilled material would be equal to the capacity of the failed tank. The maximum release of AST would be 10,000 gallons.

Table 4.0 Spill Event Log

Date	Description & Location	Contaminants	Qty. (lbs)	Corrective Actions Taken	Preventive Implemented	Measures

5.3 EQUIPMENT FAILURE

Failure or leakage of pumps, piping or other associated equipment would result in a spill. The maximum amount spilled could be as much as the entire volume of the storage tank associated with the failed equipment.

5.4 PIPELINE FAILURE

A release could occur if pipelines transporting JP-5 fuel to the hangar day tanks and refuelers would rupture. A spill of 1,000 gallons per minute is possible. To minimize potential discharges, receipt pipelines are equipped with automatic line leak detectors, which sense pressure differential if a leak would occur. The pipelines are also tested in accordance with the State Fire Marshall requirements.

5.5 HUMAN ERROR

Spill events can occur due to human error such as improper closing of valves or failure to follow material handling practices during tank loading or vehicle fueling. The maximum amount spilled would vary depending on the circumstances, for example, the length of time the spill went unnoticed or the time needed to correct the error.

5.6 TRANSPORTING OIL

Fuel trucks driving on the base pose an additional spill hazard, not associated with any one facility. A traffic mishap involving one of these vehicles could result in a spill of the following amounts:

- Aviation Gas (AVGAS): 3,000 gallons for commercial trucks;
- Jet Fuel (JP-5): 5,000 gallons for Navy trucks and 8,000 gallons for commercial trucks;
- Diesel fuel: 2,000 gallons for Navy trucks and 8,000 gallons for commercial trucks; and
- Motor Gas (MOGAS): 2,000 gallons for Navy trucks and 8,000 gallons for commercial trucks.

5.7 OTHER OPERATIONS

Other facilities not specifically described, but which may pose a limited spill potential include:

- Warehouses and compounds where petroleum products are stored;
- Individual facilities with standby generators;
- Maintenance facilities that handle oils; and
- Facilities with fuel storage tanks for pumps or other engines.

6.0 SPILL PATHWAYS

Predictions of spill directions and destinations, which may occur from ASTs and USTs, are listed in Annex D, "Spill Pathways".

7.0 SECONDARY CONTAINMENT

All ASTs on station owned by the Navy which exceed 660 gallons capacity are of double-walled construction or in secondary containment which meets or exceeds regulations.

8.0 CONTINGENCY PLAN

NAS Lemoore Instruction 5090.3A is the hazardous substance spill contingency plan.

9.0 FACILITY DRAINAGE

9.1 DIKED AREAS

All containment areas are inspected to determine if the structural integrity of the containment area is sufficient to hold oil. Records of the inspections are kept for a minimum of three years. All containment areas which have valves installed for draining water out of the containment area are equipped with open-and-close design valves. If replacement of any valve is required, it must be of open-and-close type. Flapper valves are not permitted under any circumstances. Prior to replacement of valves, Environmental will be notified to verify that proper valves are installed.

Concrete containment areas will be drained periodically to remove accumulated rainwater to prevent reduction of spill containment capacity. The following procedure will be followed:

- No water will be released from any containment area by a worker without the permission of their supervisor;
- Prior to draining a containment area, the water is checked for oil sheen. If an oil sheen is present, the contaminated water is soaked up with absorbent pads or pumped into 55 gallon drums for disposal;
- If significant quantities of oil are present, the supervisor is alerted and a determination is made as to whether a spill has occurred;
- Environmental determines whether to drain the material to an oil-water separator or to pump out for recycling/reclaiming;
- Exposed piping, hoses, and connections are checked before the containment is drained;
- Draining operations will not begin near the end of a work shift; and
- A log is kept showing the time of opening and closing the drain valve, condition of water to be drained, the operator's signature verifying the drain valve was closed and secured after draining.

A record will be kept of draining the containment area for a minimum of 3 years. A log will be kept showing the time of opening and closing the drain valve, observations made of water to be drained, the supervisor name, and operator signature. If oil is removed from the water prior to draining, a record of amount of oil removed and disposition of oil removed is required.

9.2 UNDIKED AREAS

Rainwater from undiked areas flows into the storm drainage system. Upon discovery of a spill, personnel will deploy booms on drainage ditches to recover oil to prevent oil from reaching Kings River.

10.0 BULK STORAGE TANKS

Table 10 summarizes bulk aboveground and underground storage tanks with storage capacity equal to 10,000 gallons or greater located at various locations. Materials of the tanks are compatible with the contents stored. All USTs listed in the table meet the 1998 40 CFR 280 standards for cathodic protection, spill and overfill control, and release detection.

Table 10: Bulk Storage Tanks

Year Installed	Facility ID	Tank Type	Capacity (gallons)	Tank Contents	Tank Material
1999	938A	AST	10,000	Diesel	Double-walled steel
1999	938B	AST	10,000	Diesel	Double-walled steel
1995	058-6	UST	10,000	Gasoline	Double-walled fiberglass
1995	058-5	UST	10,000	Gasoline	Double-walled fiberglass
1995	058-4	UST	10,000	Gasoline	Double-walled fiberglass
1998	096	UST	24,970	Diesel	Double-walled fiberglass
1998	098	UST	3,918	JP-5	Double-walled fiberglass
1998	099	UST	24,970	Gasoline	Double-walled fiberglass
1961	105	UST	119,478	JP-5	Single-walled steel on concrete
1961	106	UST	119,478	JP-5	Single-walled steel on concrete
1998	109	UST	24,970	JP-5	Double-walled fiberglass
1961	110	UST	596,262	JP-5	Single-walled steel on concrete
1961	111	UST	596,262	JP-5	Single-walled steel on concrete
1961	112	UST	596,262	JP-5	Single-walled steel on concrete
1961	113	UST	596,262	JP-5	Single-walled steel on concrete
1961	175	UST	20,000	JP-5	Single-walled steel
1998	176	UST	20,000	JP-5	Steel primary, fiberglass secondary
1961	215	UST	119,478	JP-5	Single-walled steel on concrete
1961	245	UST	119,478	JP-5	Single-walled steel on concrete
1961	275	UST	119,478	JP-5	Single-walled steel on concrete
1961	305	UST	119,478	JP-5	Single-walled steel on concrete
1961	335	UST	119,478	JP-5	Single-walled steel on concrete
1989	764-4	UST	10,000	Diesel	Steel primary, fiberglass secondary
1989	764-3	UST	10,000	Gasoline	Steel primary, fiberglass secondary
1996	829-8	UST	10,000	Gasoline	Steel primary, fiberglass secondary
1996	829-7	UST	10,000	Gasoline	Steel primary, fiberglass secondary
1996	829-6	UST	10,000	Gasoline	Steel primary, fiberglass secondary

11.0 FACILITY LOADING/UNLOADING OPERATIONS

The Department of Transportation (DOT) regulates the trucks that deliver fuel to the station. During loading and unloading of an oil product, DOT procedures are followed which include, but are not limited to: (1) All oil product tank drivers delivering oil products to Lemoore are licensed according to DOT and State of California regulations; (2) Secondary containment is provided at the Bulk Fuel Storage facility which is capable of holding the maximum capacity of the largest compartment in the truck; (3) Each vehicle and all valves including the bottom drain are checked prior to leaving the facility; and (4) The vehicles are equipped with an interlock device which prevents movement of the truck until the delivery hoses are disconnected.

11.1 TRUCK FILLING INSPECTION PROCEDURES

The following procedures are the minimum checks that must be made prior to filling and departure of any tank truck and are taught to employees as part of their initial and refresher training:

- Examine the lower most drain and all outlets of the vehicle for leakage, and if necessary, they must be tightened, adjusted, or replaced to prevent liquid leakage in transit; and
- Examine the vehicle brake interlock system to ensure it is operational, to prevent movement of vehicle while hoses are connected.

11.2 LOADING/UNLOADING RACK OPERATING PROCEDURES

The following procedures are used when loading or unloading petroleum products at a loading/unloading rack:

- Load and unload vehicles in approved locations only.
- Prior to material transfer, perform the following:
 - Visually check all hoses for leaks and wet spots;
 - Verify that sufficient volume is available in the storage tank or truck to receive the product to be transferred;
 - Secure the loading/unloading vehicle with physical barriers such as wheel chocks, warning signs and interlocks to safeguard against accidental movement and rupture of transfer lines;
 - Make sure that parking brakes on tank trucks are set;
 - Establish adequate bonding/grounding of the tanker truck before connecting to the fuel transfer point; and
 - Keep hose ends tightly capped while moving hoses into position.
- During the loading/unloading of products, the following guidelines apply:
 - When transferring Class 1 (flammable) liquids, shut off motors of auxiliary or portable pumps during connection and disconnection of hoses;
 - The driver, operator, or attendant of a tank truck should not remain in vehicle and should not leave vehicle unattended during the loading or unloading process;

- Make sure that communication is maintained with loading and unloading personnel at all times;
 - Monitor all hose couplings during transfer operations;
 - Monitor flow meters to determine rate of flow during loading and unloading operations;
 - Reduce flow rate while topping off the tank to provide sufficient reaction time for pump shutdown without overflow of the receiving tank; and
 - Never completely fill the receiving tank when loading oils. Fill tank to no more than 90% of its total volume to prevent leakage due to thermal expansion of the stored product.
- On completion of transfer operations, perform the following activities:
 - Close all tank valves before disconnecting;
 - Securely close all vehicle internal, external, and dome cover valves before disconnecting;
 - Make sure that the hoses or other connecting devices are drained, vented, blown down, or blown out with inert gas to remove the remaining oil before moving hoses away from their connections;
 - Cap the end of the hose or other connecting devices before moving them to prevent uncontrolled oil leakage;
 - After transfer lines are disconnected, inspect the outlets for evidence of leakage;
 - Secure all hatches, before disconnecting grounding/bonding wires; and
 - Disconnect, drain and support out-of-service or standby hoses to avoid crushing or excessive strain.
 - Prior to vehicle departure, make sure that all connections, fill lines, and grounding/ bonding wires are disconnected.

12.0 BASE OPERATIONS AND TANK FACILITIES

12.1 FUEL FARM ACTIVITY

12.1.1 General Facility Information

Fuel storage area at the Fuel Farm has been in operation since 1962 and is managed by Fuel Branch personnel. Annex E-17 presents the site plan for the Fuel Farm.

Fuels stored include Jet Fuel (JP-5), automotive motor gas (MOGAS), diesel, and waste fuel (SLOP). All tanks are equipped with visible and audible alarms for overfill and leak detection. The bulk storage tanks are within close proximity to the transfer operations control room. All Fuel Farm trucks are radio dispatched, providing a constant means for communication of any spill events.

The Fuel Farm receives JP-5 from Fresno, California via an underground pipeline, which is owned by Kinder Morgan Energy Partners. Kinder Morgan Energy Partners have indicated that the pipeline is in full compliance with DOT standards.

JP-5 jet fuel can also be delivered by truck to a receiving island. The receiving island has a 45,000 gallon secondary containment. No more than four 8,000 gallon trucks are unloaded at a time. Empty waste oil bowsters are stored within the island's containment before being returned to their respective accumulation areas.

12.1.2 Potential Spill Sources

The largest spills possible at the Fuel Farm could occur as a result of overfilling or leaking storage tanks or pipelines. Operational controls have been implemented by Fuel Farm personnel to prevent overfill. These controls consist of additional log entries at the start of fuel transfers, after fuel transfers, and at the close of business daily. Each of these log entries indicates operating positions of valves, pumps, and identification numbers. Leakage from the USTs and the buried pipeline would usually enter the soil and would not, under most circumstances, be released to surface drainage.

Other than overfilling and tank or pipeline leakage, the major spill hazard associated with the Fuel Farm is the potential for collisions of loaded fuel trucks with other vehicles, storage tanks, light poles, or other objects. This type of mishap could result in a spill of up to 5,000 gallons for JP-5 and 2,000 gallons for diesel or gasoline and could occur at virtually any location at NAS Lemoore. The trucks circulate between the hangar aprons and among the standby generator tanks during deliveries and transports. The Fuel Farm delivers fuel to all areas of the station with the exception of retail gas stations operated by Navy Exchange (NEX), agricultural land lessees, and contractors.

Pumping stations transferring fuel from the pipeline into the various JP-5 tanks are built of concrete with their floors several feet below ground level. Small leaks, which might occur during fuel transfer operations, would be retained in the station until pumped out and disposed of in the slop tank. These stations are inspected several times daily when in use to detect and eliminate any leaks.

12.1.3 Current Spill Containment, Drainage and Operating Procedures

Secondary containment is provided for the receiving island, the tank truck loading rack and gasoline pump island. Drainage from the Fuel Farm that is not contained as stated above flows toward the northeast corner to an unpaved ditch which leads through agricultural fields to the Kings River. Much of the ground within the Fuel Farm is unpaved and would absorb some of the fuel spilled there.

Safe fill procedures are in place to reduce overfills and spills. The fill procedure varies depending on the transfer operation being conducted. A detailed manual used by the operator defines the steps for each procedure. As an example, the procedure for products received by tank truck (JP-5 and gasoline) is:

1. Gauge the receipt tank manually;
2. Obtain a water gauge;
3. Determine tank fuel temperature;
4. Sample the fuel for American Petroleum Institute (API) gravity;
5. Initiate receipt documents: gauge tank, gross amount of product, temperature, API gravity and compute net amount using correctional factor;
6. Set up a piping system to receive fuel;
7. Verify tank seals;
8. Sample tank trucks;

9. Check fill markers;
10. Check for solid contaminants utilizing AEL Mark III;
11. Perform flash test (JP-5 only). Perform visual test for water and color. If water present, perform water detection test;
12. Commence off-loading;
13. Visually verify tank truck empty;
14. Secure piping system; and
15. Upon completion of receipt, perform Steps 1 through 4 and complete receipt of documents.

12.1.4 Inspections, Record and Preventive Maintenance

Fuel Farm operators visually inspect all aboveground equipment for leaks daily. Inspection Checklist (Annex B-1) is used to perform weekly and daily inspections on bulk storage facilities at the Fuel Farm. Tanks are cleaned and visually inspected every three to five years, on a rotating basis. Fire alarms are tested monthly and all tank alarms are tested during each transfer and/or receipt. Records of all inspections are on file at the Fuel Branch Office.

12.2 HOT REFUELING PAD

12.2.1 General Facility Information

NAS Lemoore has five Hot Refueling Pads, one for each hangar. The hot refueling pads allow fuel to be pumped directly into aircraft without shutting down their engines, reducing reliance on fuel trucks. Each Hot Refueling Pad has two fueling skids; each skid can fuel two aircraft at a time. Therefore, a total of four aircraft can be fueled at one time at each pad. Annex E-18 presents a site plan of the hot refueling pads.

Each refueling pad includes a 119,478 gallon single-walled JP-5 UST, termed "ready issue" tank. These tanks are equipped with high/low level alarms (set at 95% capacity) and high level shut-off valves. Single-walled steel tanks and piping are equipped with impressed current or sacrificial anode cathodic protection. Impressed current cathodic protection systems are inspected quarterly to ensure they are in proper working order.

Fuel supplied to the hot refueling pads passes through filters located in a filter room near each UST. The 17 foot by 47 foot filter room holds up to three supply filters and a return filter. The room is partially below ground and is equipped with a sump pump in case of flooding. The sump pump is operated manually only and is permitted to discharge to soil unless fuel is present in the sump. If fuel is present, discharge from the pump is directed into a tanker truck. Fuel extracted from the filters during regular testing is poured into a 55 gallon waste oil drum provided outside each filter room. Each slop drum is placed within a plastic containment.

12.2.2 Potential Spill Sources

When in service, each of the five hot refueling pads is staffed by a Fuel Farm operator and a Navy crew member. In addition to aircraft fueling, tanker trucks used to fuel transient aircraft at the transient line are fueled by these fuel skids. The possibility of a vehicle collision at the refueling pads might exist. As a result, this could cause a maximum spill of one tanker (approximately 5,000 gallons) at a rate of 200-300 gpm.

The most common fuel spills associated with the hot refueling pads result from overfilling and malfunctioning vent valves on the aircraft, causing 10 to 50 gallons of fuel to spray out of the vents during refueling operations.

The worst case scenario would be a rupture of the fuel handling equipment, caused by mechanical failure or collision. This could spill fuel at a maximum rate of 300 gpm. However, the Fuel Farm safety person must hold the "deadman" control to allow the pump to operate, the person would release the control within seconds of the spill's occurrence, thus stopping the fueling operation. It is unlikely that more than 100 gallons would be released in such a scenario.

Other potential spills that could occur would be leaking or tipping over of the 55 gallon waste oil drum and leaking of UST and associated piping.

12.2.3 Current Spill Containment, Drainage and Operating Procedures

Drainage at the skids leads to storm water drains or to the soil surrounding the apron. The fuel skid operator is responsible for placing plugs in the storm drain prior to refueling aircraft. Response personnel must clean up a spill at the refueling pads. Emergency dry-break couplings on each fueling skid prevent large spills in the event of hose ruptures.

Spill response equipment is stored at the Transient Line, Buildings 90 and 180, and the Operations Area Fire Department. The station's policy is for the Fire Department to respond to any spills on pavement over 5 gallons in volume and all spills to soil or water. Absorbent mats are used to cleanup spilled fuel on the apron.

The "ready issue" USTs are equipped with automatic shut-off valves to prevent overfilling during fuel transfer. Because of this, the "ready issue" tanks are filled without a fuel farm representative at the tank. Fuel transfer procedures to the "ready issue" tanks are:

- Set up system to circulate issue tank;
- Energize pump to commence circulation of issue tank;
- Monitor filter for circulation of issue tank;
- Upon completion of circulation, secure the piping system;
- Obtain 18" sample;
- Obtain bottom sample;
- Hand gauge for water;
- Check for solid contaminants utilizing AEL Mark III;
- Perform flash test;
- Set up piping system to transfer, commence transfer, document with starting time, issue tank number, gauge, and gross gallons;
- Upon completion stop pump, document stop time, tank number, gauge, gross gallons, and amount

- transferred; and
- Secure piping system.

12.2.4 Inspections, Record and Preventive Maintenance

Fuel Farm operators visually inspect all aboveground refueling equipment for leaks several times a day. All tanks are subject to visual inspections every three years and cleaning every six years. Fuel filters are checked each weekday and cleaned regularly. The filter room is kept clean and free of dirt to facilitate inspections for leaks. The piping systems are pressure tested once a year and tank alarms are checked during all receipts and issues. Records of all inspections are on file at the Fuel Branch Office.

12.2.5 Personnel Training

Fuel Farm personnel are trained in proper fuel transfer procedures. Fuel transfer training is discussed in the training section. A Personnel Qualification Standard (PQS) is on file for all fuel operation personnel.

12.3. NAVY EXCHANGE GAS STATION

12.3.1 General Facility Information

The Navy Exchange (NEX) operates two gas stations at NAS Lemoore. Each gas station is managed and maintained by the Navy Exchange General Manager who reports to the station Commanding Officer. One station is located in the ADMIN area and the other in the OPS area. Annex E -14 and E-15 present site plans of the ADMIN and OPS Navy Exchange gas stations, respectively.

12.3.1.1 ADMIN Area Gas Station

The NEX gas station in the ADMIN area has been in operation since 1962. The facility has three 10,000 gallon double-walled USTs installed in 1996.

One AST is located approximately 200 feet west of the vehicle maintenance shop. The tank contains diesel fuel, with a capacity of 600 gallons. Adjacent to the tanks is a diesel fuel pump. Waste oil from vehicle maintenance is currently stored in a 250 gallon tank inside the vehicle maintenance shop. The gas station has two emergency shut-off switches, one is located inside by the cash register and one is on the wall outside the vehicle maintenance bays.

12.3.1.2 OPS Area Gas Station

The NEX gas station in the OPS area has been in service since 1962. Three 10,000 gallon double-walled USTs tanks were installed in 1995. These tanks supply fuel to two fuel pump islands. No vehicle maintenance is performed at this facility. The station is equipped with emergency shut-off switches, tank and piping monitoring controls required under the State and Federal UST regulations.

12.3.2 Potential Spill Sources

Potential spills at both NEX gas stations include mechanical ruptures and overfilling incidents during the filling of the USTs or vehicles at the pump islands. Maximum spill rates are estimated at 10 gpm from the island pumps and 300 gpm from a tanker truck filling the storage tanks. The worst case scenario would be a maximum possible spill of the contents of one product tanker truck bay (8,000 gallons)

delivering fuel.

Other potential spills at the ADMIN NEX station could result from ruptures or overfilling the 250 or 600 gallon ASTs. Maximum spill rates are estimated to be 10 gpm from the diesel Pump Island and 300 gpm from a tank truck. Potential spills of less than 5 gallons could occur during vehicle maintenance activities.

12.3.3 Current Spill Containment, Drainage and Operating Procedures

All pumps, except the diesel fuel pump located next to the ASTs at the ADMIN station, are on raised fuel pump islands. Crash posts or barriers are provided for the pump islands.

Spills occurring at the pump islands at each NEX gas station would drain into the street storm water system if not contained. A spill kit for containment and cleanup is located at each gas station. The asphalt area is graded in such a way that water runoff flows to the street and storm drain.

12.3.4 Inspections, Record and Preventive Maintenance

The station operators keep inventory records comparing gallons sold and delivered. Fuel inventory consistently balances to within 10 to 15 gallons per month, which is within the accuracy expected of the metering devices. An automatic tank gauging system monitors gasoline inventory. The ADMIN NEX station uses an Incon ® monitoring system while the OPS NEX station uses a Gilbarco® monitoring system for leak detection.

12.3.5 Personnel Training

See training section.

12.4. TRANSPORTATION BRANCH

12.4.1 General Facility Information

Transportation Branch (TB), Facility Management Airfield Support Department includes Building 765 and the surrounding fenced area. The facility is used as a vehicle maintenance shop for U.S. Navy vehicles. The facility consists of a vehicle maintenance shop, oil/water separator (OWS), wash rack, a 500 gallon AST, and a refueling pump station. Annex E-13 presents a site plan for TB.

The vehicle maintenance shop has 13 maintenance bays, two of which are used only for oil changes; the others are used for preventive maintenance. A drain located in the center of the battery room floor is connected to the OWS located on the eastside of the building.

A wash rack, steam cleaner, and parts washer are located on the east side of the building. The wash rack is used to clean vehicles and equipment. A drain located in the middle of the wash rack is connected to the OWS on the eastside of the building. Two 10,000 gallon USTs are located approximately 500 feet northwest of the transportation building. These tanks supply gasoline and diesel to the fuel pump islands located in the northwest corner of the facility.

12.4.2 Potential Spills Sources

Potential spills at Transportation Branch include mechanical ruptures and overfilling incidents during the filling of the underground fuel tanks or vehicles at the pump islands. Maximum spill rates are estimated at 10 gpm from the island and 300 gpm from a tanker truck. The worst case scenario would be a spill of 2,000 gallons, which is the capacity of one tanker truck. The maximum spill volume from the OWS would be 500 gallons.

12.4.3 Current Spill Containment, Drainage and Operating Procedures

The fuel pumps are raised on an island and protected with crash posts. Potential spills occurring at the fuel pumps would drain towards storm drains located southeast of the Pump Island. Interstitial spaces and underground piping sumps of the USTs are continuously monitored by Ronan® leak detection system. Audio and visual alarms will be activated when free product is detected in the interstitial spaces or the piping sumps. A spill kit to contain and cleanup spills is kept at the fuel pumps and inside the vehicle maintenance building.

12.4.4 Inspections, Record and Preventive Maintenance

Oil in the OWS is inspected and gauged quarterly by the Facility Management Airfield Support Department Maintenance Branch (MB). When liquid level in the oil chamber indicates the chamber is $\frac{3}{4}$ full, it is pumped.

Fuels Branch keeps inventory records comparing gallons pumped at the islands to gallons delivered into the tanks. These records indicate no major leaks have occurred from the USTs. Fuel inventory consistently balances to within 10 to 15 gallons per month, which is within the accuracy expected of the metering devices.

12.4.5 Personnel Training

See training section.

12.5. HAZARDOUS WASTE FACILITY

12.5.1 General Facility Information

The Hazardous Waste Storage Facility (HWSF), Building 44, is operated by Environmental and is used for storage of containerized hazardous waste produced at numerous facilities throughout NAS Lemoore. Annex E-28 presents a site plan of the HWSF.

The facility consists of a raised concrete pad that is covered by a roof and includes a collection sump and six bermed containment areas. The containment areas are segregated by waste type. 55 gallon drums of solid hazardous waste and empty contaminated drums are stored on asphalt outside at the main storage fenced area. Containerized liquid and solid hazardous wastes are brought to the facility and stored for no more than 90 days prior to disposal.

The HWSF stores hazardous waste at the facility for less than 90 days. Therefore, the facility is a hazardous waste accumulation area and does not require a RCRA Part B Permit.

12.5.2 Potential Spill Sources

Containers of hazardous waste are loaded on and off trucks using forklifts. A potential spill could occur if a forklift knocked over or ruptured any hazardous waste container. Maximum possible spill volumes would depend on the size of container that leaks or ruptures and the response time to contain and clean up potential spills, but would likely be limited to four 55 gallon drums.

12.5.3 Current Spill Containment, Drainage and Operating Procedures

The HWSF is a raised concrete pad with a loading ramp and rollover curb. The rollover curb enables safe loading and unloading, and proper access for placement of waste containers in the HWSF using a truck and forklift.

Containerized hazardous wastes are placed on pallets before loading or unloading operations. All pallets of containers stored in the area are arranged to provide 30 to 36 inches of aisle space in order to allow unobstructed movement of personnel, fire protection, spill control, and decontamination equipment. The containers are stacked no higher than two pallets. Containers are positioned so the hazardous waste labels are clearly visible. Containers are kept sealed to prevent loss of waste or emission of hazardous gases, mists, or vapors.

Any potential spills that might occur within the HWSF would be contained by at least one of the six secondary containment areas. The HWSF has a spill containment and cleanup kit located within the fenced area of the facility next to the gate. All leaks or spills are cleaned up upon immediate detection. Vehicles that handle waste are equipped with spark arresters and fire extinguishers are available on site.

12.5.4 Inspection, Record and Preventive Maintenance

All containers of liquid hazardous waste are inspected on a daily basis for corrosion and leaks. In addition, Inspection Checklist in Annex B-2 is used to inspect the facility quarterly to identify or prevent potential spills from the hazardous waste handling operation.

A detailed inventory record of all hazardous waste being delivered to or shipped from the HWSF is kept at Environmental.

12.5.5 Security

The HWSF is kept locked when unattended. NAS Lemoore security personnel regularly patrol the area. Signs are posted on the building that read "Caution - Hazardous Waste Area - Unauthorized Persons Keep Out". Adequate lighting is provided within the HWSF for detection of potential spills and to deter unauthorized entry.

12.5.6 Personnel Training

See training section.

12.6 AUTO HOBBY SHOP

12.6.1 General Facility Information

The Auto Hobby Shop (Building 954) is located in the administration area of NAS Lemoore. This facility provides tools, space, and auto repair expertise to military and civilian personnel. The shop is

managed by Morale, Welfare and Recreation (MWR) and has been in operation since 1976. Annex E-9 presents a site plan for this site.

Activities at the Auto Hobby Shop involve all aspects of vehicle maintenance. The facility includes a parts department, steam cleaner, a paint booth, workshop area (Building 954), hazardous waste accumulation area, parts cleaner, a 550 gallon Oil/Water Separator (OWS), and two 250 gallon waste oil tanks. A gravity OWS is located adjacent to the Auto Hobby Shop and a small oil water separator is located at Bldg. 877 (retail car wash).

12.6.2 Potential Spill Sources

Potential spill sources at the Auto Hobby Shop are leakage or rupture of containers of oil and hazardous materials/wastes, spills of hazardous materials during maintenance activities, and leaks or spills during the transfer of oil to the recyclable oil AST.

Upon removal, waste automotive coolants are poured into appropriate 55 gallon waste drums. Maximum potential oil spill volume would equal the maximum capacity of the OWS (550 gallons). Other potential spill sources would be leaking or rupturing containers of hazardous material stored in the auto shop yard, storage lockers, and paint booths.

12.6.3 Current Spill Containment, Drainage and Operating Procedures

The Auto Hobby Shop yard is paved with concrete and the area surrounding the shop is soil. Shop floor and degreaser drains flow to the station sewer system via an OWS located outside the southwest corner of the building. The hazardous waste storage area located outside the northwest corner of the building has a permanent concrete secondary containment with a capacity of 700 gallons to contain spills.

Spills occurring outside eastside of the building would flow into a storm water drain. Spills occurring inside the building from hazardous material storage lockers or accidental spills during maintenance activities would flow into floor drains connected to the OWS.

A spill kit and removable mats are provided to contain and prevent oil spill from entering into storm drains in the event of a spill.

12.6.4 Inspections, Record and Preventive Maintenance

Oil in the OWS is inspected and gauged quarterly by MB. When liquid level in the oil chamber indicates the chamber is $\frac{3}{4}$ full, it is pumped.

Shop personnel inspect all Auto Hobby Shop equipment regularly for defects. Preventive maintenance measures include posted rules for good housekeeping and safety procedures, the use of Speedy-dry absorbent by auto shop patrons to contain any leaks during maintenance.

12.6.5 Personnel Training

See training section.

12.7 CONSTRUCTION BATTALION UNIT (CBU-406)

12.7.1 General Facility Information

The Construction Battalion (CB) is located in the administration area of NAS Lemoore. The CB facility includes Buildings 745, 754, and the surrounding fenced area. The facility consists of office buildings, a maintenance shop, a storage building, construction yard, and hazardous material/waste storage area. The potential for spills is limited to the maintenance shop, the storage building, and construction yard. Annex E-16 presents a site plan for the CB Unit.

The maintenance shop, which consists of two maintenance bays, is used to maintain vehicles and equipment used in daily construction activities. The construction yard is used to store construction vehicles and equipment.

The hazardous material storage and hazardous waste accumulation areas contain hazardous material and waste from daily construction and maintenance activities. These areas are within a secured fenced area and contain 55 gallon drums of hydraulic oils, lubricants, antifreeze, and waste oils. Drums of hazardous material and waste are segregated and each waste type has its own secondary containment.

12.7.2 Potential Spills

Potential spills at the CB Unit could occur from leakage or tipping over of the 55 gallon drums, accidental material spillage during maintenance activities, or could result from vehicles and equipment leaking oil.

12.7.3 Current Spill Containment, Drainage and Operating Procedures

The hazardous waste accumulation area has secondary containment for containers. The storage area is covered with a roof and surrounded by cyclone fencing.

Any potential spills occurring outside the maintenance shop and the hazardous waste storage area would flow into the four storm drains located in the construction yard. A spill kit and removable mats are provided to contain and prevent oil spill from entering into storm drains in the event of a spill.

12.7.4 Inspection, Records and Preventive Maintenance

All containers of hazardous material and waste are inspected on a daily basis for leaks. Records of all hazardous waste generated at the CB Unit are kept at the facility.

12.7.5 Personnel Training

See training section.

13.0 RESPONSE PLAN

The Lemoore Naval Air Station Commanding Officer or his designated representative acts as the Navy On-Scene Commander (NOSCDR) directing all initial response efforts on and around the station to

contain and clean up spills using local manpower and materials. When directed by the NOSCDR, the On-Scene Operations Team provides guidance and assistance in proper cleanup and decontamination of the area. A qualified person must sample soil contaminated with spills and the samples must be sent to a certified laboratory for analysis. If the Commanding Officer determines that NAS Lemoore cannot handle a spill, which occurs, he contacts the Commander Naval Base, San Diego who is the Navy On-Scene Coordinator (NOSC). At that time the NOSC directs all response efforts.

13.1 EMERGENCY NOTIFICATION PROCEDURES

NASLEMINST 5090.3A.

13.2 CLEANUP AND DISPOSAL

Cleanup and disposal are the responsibility of the Director of Facility Management Airfield Support Department under the authority of the NOSCDR. Cleanup will be directed by the NOSCDR who shall ensure that cleanup efforts are sufficient to meet regulatory requirements, prevent risk to health and safety of the public, prevent further contamination, and restore environmental quality of the affected area. In the event of a spill, NAS Lemoore personnel responsible for containment and cleanup of oil spills will use the equipment listed in the next section.

13.3 SPILL RESPONSE RESOURCES

Table 13.3 summarizes point of contact, location, type of equipment, and resources available for spill response.

Table 13.3: Resources for Spill Response

Location	Type of Resources	Point of Contact
Building 765	<ul style="list-style-type: none"> • 12' blade grader • 1.5 CY front end loader • 14 CY scraper • 2 x crawler tractors • Wheel tractor with 5' pull blade • ¾ CY front end loader • Gradeall with 18", 24" and 36" bucket 	Transportation Branch Head or alternate
Building 754	<ul style="list-style-type: none"> • Grader 12' blade • Wheel tractor, 4-in-1 bucket • Crawler tractor, Caterpillar D-5, 12' blade 	Construction Battalion Unit OIC or alternate
Building 90	<ul style="list-style-type: none"> • 2 x 2,000 gallon fuel vacuum trucks 	Fuel Division Supervisor or alternate
Building 751	<ul style="list-style-type: none"> • Referencing materials: site specific maps, NIOSH/OSHA Pocket Guides, DOT Emergency Response Guide, IOSH/OSHA Occupational Health Guidelines for Chemical Hazards, Library of Material Safety Data Sheets, NFPA Fire Protection Codes, SAX Dangerous Properties of Industrial Materials 	Environmental Site Manager or alternate

Location	Type of Resources	Point of Contact
	<ul style="list-style-type: none"> Environmental Monitoring Equipment: 3 combustible gas indicator/ oxygen monitor Gas Tech model 1314, one anemometer, one pump on colormetric tube kit to test for presence of various hazardous materials 	
Building 44	<ul style="list-style-type: none"> Support Equipment: Absorbent materials, blank hazardous waste labels, barricade tape, Spill Incident Report Forms, one 2,000 gallon fuel vacuum trucks 	Environmental Site Manager or alternate
Building 190 Building 730	<ul style="list-style-type: none"> Personal protective equipment: Level "A" and level "B" suites, coveralls, gloves Hazardous Material Response trailer, reference materials, fire fighting/hazardous substance spill response equipment Emergency Communication System and 24-hr Dispatch Center 	Fire Department Immediate Response Team
Building 760	<ul style="list-style-type: none"> Hand equipment such as shovels, rakes, squeegees, brushes, mops, mop buckets 	Maintenance Branch Head or alternate

13.4 MAJOR SPILL CLEANUPS

Personnel working on spill cleanups will wear appropriate protective clothing, gloves, boots, and breathing apparatus as the situation requires. They will also have special emergency response training. Spills greater than 5 gallons are reported to the Fire Department who acts as first responder determining the necessary actions for spill response. Spill cleanup response is coordinated by Environmental and completed by the Hazardous Waste Branch. The following procedures should be followed in the event of a major spill (typically greater than 25 gallons):

1. Stop the flow of spilled material;
2. Confine the material to the smallest possible area. Primary containment devices such as berms, booms, or sandbags should be used to prevent the spilled material from entering the sanitary sewer, storm drain system or waterways;
3. Notify the Fire Department and Environmental; and
4. Using cleanup equipment, contain any material that may be outside of secondary containment. Recover material (as much as possible) either into truck, tank, or salvage containers and dispose of properly.

13.5 MINOR SPILL CLEANUPS

Minor spills are considered 25 gallons or less based on best management practices in the oil industry. The minor spill designation does not imply that its cleanup is less important than a major spill. Minor spills will be cleaned up immediately using the appropriate materials and equipment. If there is a potential for material to breach containment areas and impact the storm or sewer system or a waterway, personnel will take necessary measures to protect these areas.

13.6 SPILL REPORTING

The person discovering the spill immediately reports an oil spill of 5 gallons or more or a spill of any size that could impact the environment to the NAS Lemoore Fire Department at 9-911. The Immediate Response Team (IRT) will respond to the spill. IRT leader will notify the Environmental Site Manager (ESM) of any oil spill of 5 gallons or more. The ESM will determine whether the spill is reportable to the United States Environmental Protection Agency (EPA) and the State of California. The ESM is responsible for all reports to state and federal agencies.

The reporting system defined in reference d is designed to help coordinate and expedite mitigation and clean-up activities, to keep records of spills for the purpose of minimizing recurrence and to comply with various legal requirements. Spill reporting procedures include notification of appropriate personnel to initiate immediate action, preparation of formal written reports for review and evaluation of spills and notification, as required by law, of governmental agencies. Written reports must include the date and time of spill, weather conditions, nature of materials involved, duration, spill volume, cause, environmental problems, countermeasures taken and people and agencies notified. Spill reporting formats are discussed in reference d.

14.0 TANK TESTING AND INSPECTIONS

All active USTs at NAS Lemoore are tested according to California Underground Storage Tank regulation. USTs and ASTs managed by the Fuel Farm are cleaned and inspected at five year intervals. The required underground tank testing is contracted and supervised by Environmental.

Annex B-1 Bulk Fuel Storage Facility Inspection Checklist is for the Fuel Branch to perform daily and weekly inspections. Table B2 Container Storage Facility Inspection Checklist is for Environmental to inspect the hazardous waste storage facility quarterly.

All ASTs and associated secondary containment structures are visually inspected monthly for signs of structural damage. Annex B-3 AST Facilities Inspection Checklist is for AST users and fuel support personnel to perform inspection monthly. Environmental staff will use Annex B-3 to inspect AST sites within 24 hours after any storm event of 0.5 inches or greater. Records of AST inspection will be kept on file by the users or fuel support personnel at least three years. The checklist will be made available upon request of environmental staff and/or regulatory personnel.

Inspections of the fuel tanks owned by farmers and contractors on NAS Lemoore are the responsibility of the farmers and contractors. However, environmental staff will conduct quarterly inspections on farmers' and contractors' tanks. The environmental staff will notify the farmers or contractors if deficiencies are noted.

15.0 RECORD KEEPING

Depending on the function of the facilities, fuel records are kept in different areas as follows:

- Records of fuel delivered and received by the Fuel Farm are kept in the Fuels Facilities Manager's Office;

- Records of fuel received and sold by the Navy Exchange gas stations are kept by the ADMIN NEX gas station manager; and
- Records of fuel received and dispensed by Transportation Branch are kept in the Fuel Facilities Manager's Office.

16.0 SECURITY

16.1 EQUIPMENT SECURITY

Starter controls on pumps at the Fuel Farm are turned off and locked. Pump controls are in a location that is locked when unattended and access to the Fuel Farm is restricted by a fence and locked gate.

ASTs and USTs access ways are always locked except when filling or emptying tanks. The military gas station uses a key lock system to restrict access to authorized users only. The retail gas stations lock the fuel drop access covers to the USTs, except when being filled.

16.2 STATION SECURITY

The station military police are responsible for station-wide security and patrol on a 24-hour basis. All buildings and compounds are locked after business hours or when unattended. The individual military unit is responsible for security in their area. In the event that a spill occurs, the military police contact the station Fire Department.

17.0 TRAINING

17.1 FUEL BRANCH PERSONNEL

Four hours of annual refresher training in oil spill prevention is given to personnel physically involved in the handling of oil as part of their duties. All employees in oil operations such as drivers, tank gaugers, pumpers, and other personnel are trained in applicable pollution control regulations and proper operation and maintenance of equipment to prevent spills. New personnel on the job will receive 8-hour initial training in applicable pollution control regulations and proper operation and maintenance of equipment to prevent spills before they are capable of working unassisted. Spill prevention practices are also discussed whenever personnel are trained on unfamiliar oil handling equipment. Records of all training and safety meetings are kept at the Fuel Branch Office.

17.2 STATION PERSONNEL

Oil in California is a hazardous substance until recycled; therefore, station personnel working with oil are trained quarterly in spill prevention of hazardous substances, which includes oil spills. The following topics are discussed:

- Proper storage of drums, particularly bung drums;

- Notification of the NAS Lemoore Dispatcher (9-911) if over 5 gallons of petroleum product or any amount of hazardous substance determined to be harmful to human health or the environment;
- Procedures to contain a small spill on pavement;
- Procedures to notify the NAS Lemoore Dispatcher (9-911) and evacuate if a spill is extremely hazardous;
- Procedures to de-energize any electrical sources and present the MSDS for the material spilled to the trained response team (Fire Department); and
- Rules and regulations update as applicable.

ANNEX A: ACRONYMS

Admin	Administration Area
CCR	California Code of Regulations
CFR	Code of Federal Regulations
DOD	Department of Defense
DOT	Department of Transportation
DTSC	Department of Toxic Substance Control, Cal-EPA
ESM	Environmental Site Manager
EPA	Environmental Protection Agency
gpm	gallons per minute
GSE	Ground Support Equipment
HW	Hazardous Waste
HWSF	Hazardous Waste Storage Facility
IWTF	Industrial Waste Treatment Facility
MB	Maintenance Branch, Facility Management Airfield Support Department
MOGAS	Motor Vehicle Gasoline
MSDS	Material Safety Data Sheet
MWR	Morale, Welfare and Recreation Department
NAMTRADET	Naval Air Maintenance Training Detachment
NAS	Naval Air Station
NASLEMINST	Naval Air Station Lemoore Instruction
NAVOSH	Navy Occupational Safety and Health
NEX	Navy Exchange
NRC	National Response Center
OMD	Operations Maintenance Department
OPNAV	Prefix for any instruction issued by the Chief of Naval Operations
OPNAVINST	Operational Naval Instruction
OPS	Operations Area
OSHA	Occupational Safety and Health Act
OWS	Oil Water Separator
POC	Point of Contact
ppm	Parts per million
psi	Pounds per square inch
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SCP	Spill Contingency Plan
SPCC	Spill Prevention Control and Countermeasure Plan
TB	Transportation Branch, Facility Management Airfield Support Department
TSCA	Toxic Substance Control Act
UST	Underground Storage Tank

ANNEX B: INSPECTION CHECKLIST

Table B1: Bulk Storage Facility Inspection Checklist

Item No.	Description	OK	Repair		Remarks
			Needed	Made	
Workday Inspection					
1.	Fire Extinguisher in place and operational				
2.	Static grounding and bonding cables in place and in good condition				
3.	Filter/separators and strainers drained, free of water and pressure differential checked.				
4.	Meters for abnormal noise, leaks, or damage				
5.	Loading/off-loading hose and nozzles for leaks or damage				
6.	Valves, piping and swivel joints for leaks or damage				
7.	Pumps in operation for abnormal noise, leaks or overheating				
8.	Automatic gauging system				
9.	Electric switches operable				
10.	Pits: Free of water & debris				
11.	Day tank: fill valves operable				
12.	Pressure vacuum vents and flame snuffers operating freely, check during each transfer and receipt				
13.	Working areas: clean and free from fire hazards				
14.	Waste fuel drums and trash cans empty				
15.	Log books and records in a current status				
Weekly Inspection					
1.	Strainers: inspect and clean				
2.	Circulate tank bottoms				
3.	Storage tank alarm systems: check high/low level alarms during transfer				
Signature:				Date:	Time:

ANNEX B: INSPECTION CHECKLIST

Table B2: Container Storage Facility Inspection Checklist

Item No.	Description	OK	Repair		Remarks
			Needed	Made	
Quarterly					
1.	Container storage areas are roofed and not exposed to weathering or corrosion				
2.	Working surfaces are tidy				
3.	Cabinets, racks, lockers, and pallets are properly used				
4.	Storage equipment is not damaged or corroded				
5.	Container handling equipment is not broken or damaged				
6.	Pumps or hose are not leaking				
7.	Drum spigots and bungs are not leaking				
8.	Drip pans are used in areas subject to spills outside containment structures				
9.	Drip pans are adequate to contain potential spills and leaks				
10.	No holes, cracks, or other potential sources of leaks				
11.	Lighting systems are adequate and have no missing, broken, or burnout globes				

Facility ID: _____ Inspected By: _____ Date: _____

Comments:

[illegible]

ANNEX B: INSPECTION CHECKLIST

Table B3: Aboveground Storage Tank Facility Monthly Inspection Checklist

Description	Condition	Corrective actions taken if "Bolded" condition selected
Tank and Piping Conditions		
Tanks are rusted, pitted, cracked, or deteriorated	Y N	
Tank foundation has eroded, rusted, or settled	Y N	
Tank supports are deteriorated or buckled	Y N	
Tank bottoms have accumulated rust, scale, microorganisms or foreign material	Y N	
Evidence of leak from piping or tank is noticed	Y N	
Bolts, rivets, or seams are damaged, cracked, or rusted	Y N	
Containment Areas		
Drain valves are unsecured in a closed position	Y N	
Regulated substance is in the containment	Y N	
Standing water is in the containment	Y N	
Containment dikes have holes, cracks, or other breaches that could result in leaks	Y N	
Drainage and structure are clogged and have accumulated debris	Y N	
Auxiliary Equipment/Structures		
Leak detection system is operable if installed	Y N	
External stairways and walkways on aboveground tanks are sound and unobstructed	Y N	
Ramps and other structures associated with spill control are in good condition (not cracked or damaged)	Y N	
Gauge or monitoring device functions properly	Y N	
Overfill prevention device functions properly if installed	Y N	
Spill response equipment is available and functional	Y N	

Facility ID: _____ Inspected By: _____ Date: _____

Comments:

ANNEX C: STORAGE TANK INVENTORY

Table C1: Aboveground Storage Tank Inventory

Building No.	Capacity (gallons)	Tank Material	Contents	Secondary Containment	Tank Type	Responsible Party for Monthly Inspection
1	250	Double-walled steel	Diesel	No	AST for generator	Transportation Branch
3	275	Single-walled steel	Diesel	Yes	AST for generator	Transportation Branch
44	1,000	Double-walled steel	JP-5	No	AST	Hazardous Waste Management Office
50	500	Single-walled steel	Diesel	Yes	AST for fire pump	Transportation Branch
60	100	Single-walled steel	Diesel	No	Generator	Transportation Branch
80	500	Double-walled steel	Diesel	No	Generator	Transportation Branch
91	120	Double-walled steel	JP-5	Yes	AST	Fuel Facility Manager
92	5,000	Single-walled steel	Waste oil	Yes	AST	Fuel Facility Manager
92A	1,000	Double-walled steel	Waste oil	Yes	AST	Fuel Facility Manager
160	10	Single-walled steel	Diesel	No	Generator	Transportation Branch
175	800	Single-walled steel	10/10 Oil	Yes	AST	Aircraft Intermediate Maintenance Department
176	800	Single-walled steel	10/10 Oil	Yes	AST	Aircraft Intermediate Maintenance Department
179	500	Double-walled steel	Waste oil	No	AST	Aircraft Intermediate Maintenance Department
190	10	Single-walled steel	Gasoline	No	Generator	Fire Department
450	100	Single-walled steel	Diesel	Yes	Generator	Transportation Branch
461	110	Double-walled steel	Diesel	No	AST for generator	Transportation Branch
462	200	Single-walled steel	Diesel	No	Generator	Transportation Branch
464	75	Single-walled steel	Diesel	No	Generator	Transportation Branch
466	100	Single-walled steel	Diesel	Yes	Generator	Transportation Branch
467	100	Single-walled steel	Diesel	Yes	Generator	Transportation Branch
468	250	Double-walled steel	Diesel	No	AST for generator	Transportation Branch
722	200	Single-walled steel	Diesel	No	Generator	Transportation Branch
738	150	Single-walled steel	Hyd. Oil	No	AST	Naval Aviation Maintenance Training Group
740	200	Single-walled steel	Diesel	No	Generator	Transportation Branch
760	275	Single-walled steel	Diesel	Yes	AST for fire pump	Maintenance Branch
765	500	Double-walled steel	Waste oil	No	AST	Transportation Branch
795	100	Single-walled steel	Diesel	No	AST for generator	Transportation Branch
829	250	Double-walled steel	Waste oil	No	AST	NEX Gas Station
829A	600	Double-walled steel	Diesel	No	AST	NEX Gas Station
928	600	Double-walled steel	Diesel	No	AST for generator	Transportation Branch

Building No.	Capacity (gallons)	Tank Material	Contents	Secondary Containment	Tank Type	Responsible Party for Monthly Inspection
930	200	Single-walled steel	Diesel	No	Generator	Transportation Branch
938-A	10,000	Double-walled steel	Diesel	Yes	Boiler AST	Maintenance Branch
938-B	10,000	Double-walled steel	Diesel	Yes	Boiler AST	Maintenance Branch
938-C	100	Single-walled steel	Diesel	No	Generator	Transportation Branch
938-D	100	Single-walled steel	Diesel	No	Generator	Transportation Branch
954-1	250	Double-walled steel	Waste oil	Yes	AST	MWR Auto Hobby Shop
954-2	250	Double-walled steel	Waste oil	Yes	AST	MWR Auto Hobby Shop
960	50	Single-walled steel	Diesel	No	Generator	Transportation Branch
980	100	Single-walled steel	Diesel	No	Generator	Transportation Branch
Aero Club	1,000	Double-walled steel	Av. Gas	No	AST	Aero Club
Industrial Ground Maint.	190	Fiberglass	Gasoline	Yes	AST	Cardinal Maintenance Services Inc.
Industrial Ground Maint.	190	Fiberglass	Diesel	Yes	AST	Cardinal Maintenance Services Inc.
Housing Contractor	500	Single-walled steel	Gasoline	Yes	AST	Ameriko Housing Maintenance
Housing Ground Maint.	550	Single-walled steel	Gasoline	Yes	AST	Ameriko Housing Maintenance
Housing Ground Maint.	350	Single-walled steel	Diesel	Yes	AST	Ameriko Housing Maintenance
Reusable Fuel	1,000	Double-walled steel	JP-5	No	AST	Fuel Facility Manager
T-26 APU Test Stand	100	Single-walled steel	JP-5	No	AST	Aircraft Intermediate Maintenance Department

ANNEX C: STORAGE TANK INVENTORY

Table C2: AST Operational Data

Tank No.	Tank Material	Release Detection Method	Operational Data
001	Steel double-walled	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
003	Single-walled steel Steel containment	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
44	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
050	Single-walled steel Steel containment	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
060	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
080	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
92	Single-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
092A	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
160	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
175	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
176	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
179	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y

Tank No.	Tank Material	Release Detection Method	Operational Data
190	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
450	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
461	Double-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
462	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
464	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
466	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
467	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
468	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
722	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
738	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
740	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
760	Single-walled steel Steel containment	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
765	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y

Tank No.	Tank Material	Release Detection Method	Operational Data
			Lighting: Y
795	Single-walled steel Metal containment	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
829	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
829A	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
928	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
930	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
938A	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
938B	Double-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
938C	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
938D	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
954-1	Single-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
954-2	Single-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
960	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: N Security: Y Lighting: Y
980	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: N

Tank No.	Tank Material	Release Detection Method	Operational Data
			Security: Y Lighting: Y
AERO CLUB	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
Industrial GM	Fiberglass tank In containment	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
Industrial GM	Fiberglass tank Containment	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
Housing Contractor	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
Housing GM	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
Housing GM.	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y
Reusable Fuel	Double-walled steel	Visual observation	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y
T-26 APU Test Stand	Single-walled steel	Visual observation	Overfill Protection: N Spill Cleanup Equipment: Y Security: Y Lighting: Y

ANNEX C: STORAGE TANK INVENTORY

Table C3: Underground Storage Tank Operational Data

Tank No.	Release Detection Method	Operational Data	Comments
58-4	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
58-5	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
58-6	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
96	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Security: Y Lighting: Y	
98	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
99	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
105	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
106	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
109	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
110	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
112	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
113	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	

Tank No.	Release Detection Method	Operational Data	Comments
175	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
176	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
215	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
245	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
275	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
305	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
335	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
764-3	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
764-4	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
829-6	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
829-7	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	
829-8	Continuous Monitoring	Overfill Protection: Y Spill Cleanup Equipment: Y Security: Y Lighting: Y	

ANNEX D: AST & UST SPILL PATHWAYS

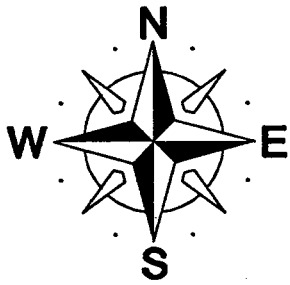
Table D1: Spill Pathway for AST & UST

Tank	Spill Direction	Spill Destination
AST		
1	Onto floor adjacent to tank	Floor adjacent to tank
3	Onto floor adjacent to tank	Floor adjacent to tank
44	Onto ground adjacent to tank	Ground adjacent to tank
50	Onto floor adjacent to tank	Floor adjacent to tank
60	Onto ground adjacent to tank	Ground adjacent to tank
80	Onto ground adjacent to tank	Storm Drain
91	Onto ground adjacent to tank	Ground adjacent to tank
92	Onto ground adjacent to tank	Ground adjacent to tank
92A	Onto ground adjacent to tank	Ground adjacent to tank
160	Onto floor adjacent to tank	Floor adjacent to tank
175	Onto ground adjacent to tank	Ground adjacent to tank
176	Onto ground adjacent to tank	Sewage drain
179	Onto ground adjacent to tank, & west	Storm Drain
190	Onto ground adjacent to tank	Ground adjacent to tank
450	Onto ground adjacent to tank	Ground adjacent to tank
461	Onto ground adjacent to tank	Ground adjacent to tank
462	Onto ground adjacent to tank	Ground adjacent to tank
464	Onto ground adjacent to tank	Ground adjacent to tank
466	Onto ground adjacent to tank	Ground adjacent to tank
467	Onto ground adjacent to tank	Drainage ditch
468	Onto ground adjacent to tank	Dirt adjacent to tank
722	Onto ground adjacent to tank	Storm drain
738	Onto ground adjacent to tank	Floor adjacent to tank
740	Onto ground adjacent to tank	Dirt adjacent to tank
760	Onto floor adjacent to tank	Floor adjacent to tank
765	Onto ground adjacent to tank	Ground adjacent to tank
795	Onto ground adjacent to tank	Ground adjacent to tank
825	Onto ground adjacent to tank	Dirt adjacent to tank
829	Onto floor adjacent to tank	Dirt adjacent to tank
829A	Onto ground adjacent to tank	Ground adjacent to tank
928	Onto floor adjacent to tank	Ground adjacent to tank
930	Onto ground adjacent to tank	Ground adjacent to tank
938	Onto ground adjacent to tank	Ground adjacent to tank
938	Onto ground adjacent to tank	Ground adjacent to tank
938	Onto ground adjacent to tank	Ground adjacent to tank
938	Onto ground adjacent to tank	Ground adjacent to tank
954-1	Onto floor adjacent to tank	Floor adjacent to tank
954-2	Onto floor adjacent to tank	Floor adjacent to tank
960	Onto floor adjacent to tank	Floor adjacent to tank
980	Onto ground adjacent to tank	Dirt adjacent to tank

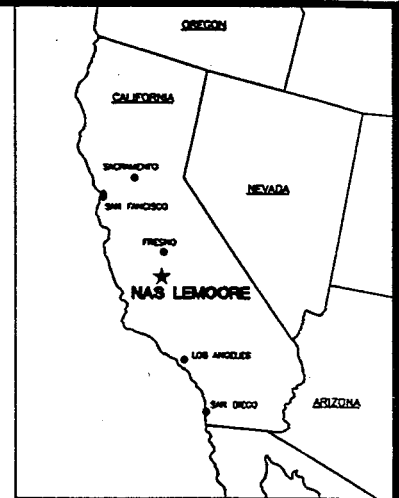
Tank	Spill Direction	Spill Destination
AERO Club	Onto ground adjacent to tank	Ground adjacent to tank
Industrial GM	Onto ground adjacent to tank	Dirt adjacent to tank
Housing GM	Onto ground adjacent to tank	Dirt adjacent to tank
Housing Contractor	Onto ground adjacent to tank	Dirt adjacent to tank
Reusable Fuel	Onto ground adjacent to tank	Ground adjacent to tank
T-26 Test Stand	Onto ground adjacent to tank	Ground adjacent to tank
UST		
58-4	Onto ground adjacent to tank	Storm Drain
58-5	Onto ground adjacent to tank	Storm Drain
58-6	Onto ground adjacent to tank	Storm Drain
96	Onto ground adjacent to tank	Ground adjacent to tank
98	Onto ground adjacent to tank	Ground adjacent to tank
99	Onto ground adjacent to tank	Ground adjacent to tank
105	Onto ground adjacent to tank	Ground adjacent to tank
106	Onto ground adjacent to tank	Ground adjacent to tank
109	Onto ground adjacent to tank	Ground adjacent to tank
110	Onto ground adjacent to tank	Ground adjacent to tank
111	Onto ground adjacent to tank	Ground adjacent to tank
112	Onto ground adjacent to tank	Ground adjacent to tank
113	Onto ground adjacent to tank	Ground adjacent to tank
175	Onto ground adjacent to tank	Ground adjacent to tank
176	Onto ground adjacent to tank	Ground adjacent to tank
215	Onto ground adjacent to tank	Dirt adjacent to tank
245	Onto ground adjacent to tank	Dirt adjacent to tank
275	Onto ground adjacent to tank	Dirt adjacent to tank
305	Onto ground adjacent to tank	Dirt adjacent to tank
335	Onto ground adjacent to tank	Dirt adjacent to tank
764-3	Onto ground adjacent to tank	Storm Drain
764-4	Onto ground adjacent to tank	Storm Drain
829-6	Onto ground adjacent to tank	Storm Drain
829-7	Onto ground adjacent to tank	Storm Drain
829-8	Onto ground adjacent to tank	Storm Drain

LIST OF MAPS **ANNEX E**

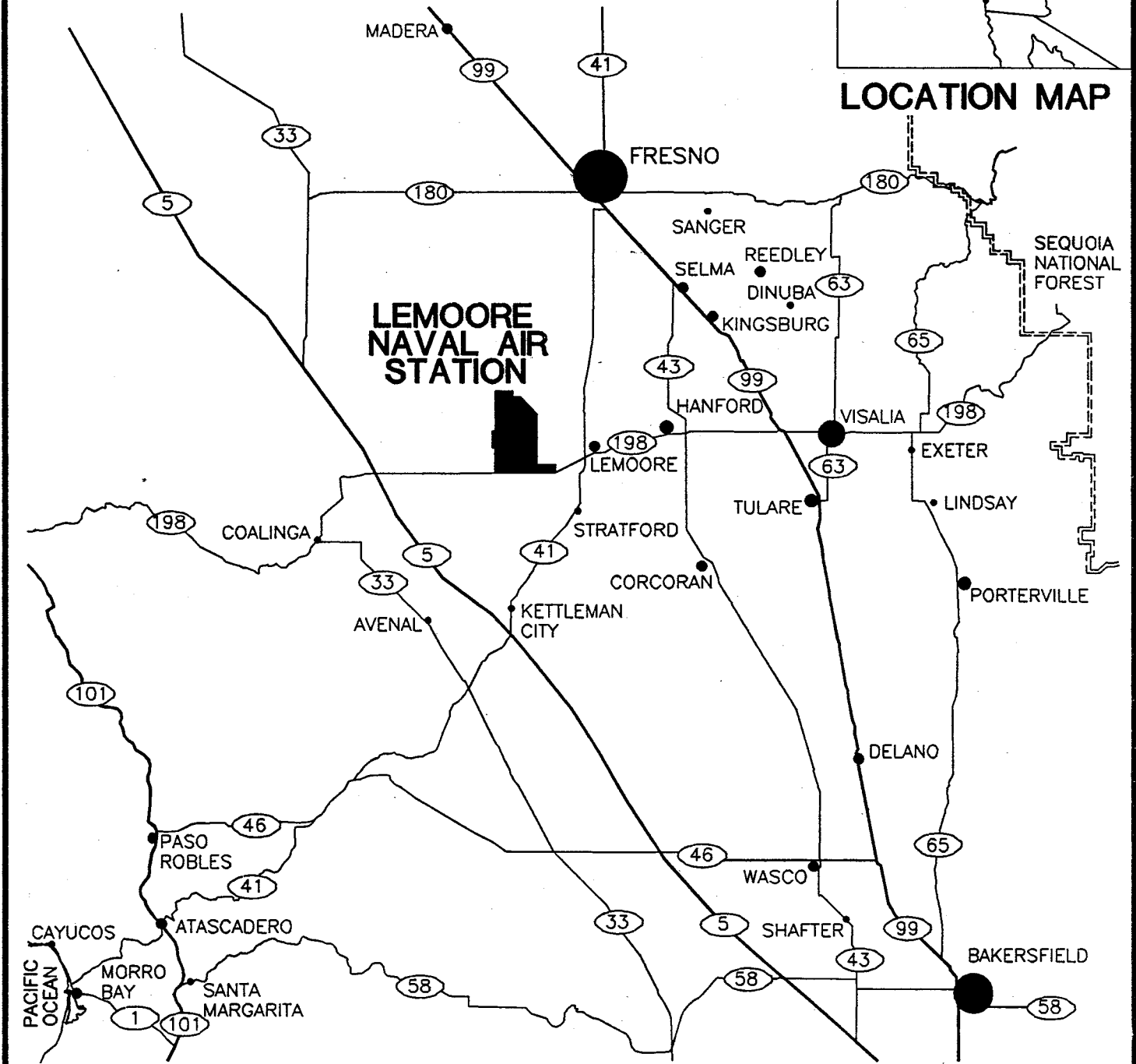
MAP	Page
Area Map, NAS Lemoore -----	E-1
Local Area Map, NAS Lemoore -----	E-2
NAS Lemoore Surface Drainage Ditches -----	E-3
NAS Lemoore Administration Area Map -----	E-4
Operations Area Map, NAS Lemoore -----	E-5
Sewage Pump Station Site Plan, Bldg. #980 -----	E-6
Hospital Emergency Generators Site Plan, Bldg. #930 -----	E-7
Auto Hobby Shop Site Plan, Bldg. #954 -----	E-8
Water Treatment Plant Site Plan, Bldg. #722 -----	E-9
Utility Plant Site Plan Bldg. #50 -----	E-10
Utility Plant Site Plan, Bldg. #760 -----	E-11
Transportation Site Plan, Bldg. #765 -----	E-12
Navy Exchange Service Station Site Plan, Bldg. #829 -----	E-13
Navy Exchange Gas Station Site Plan, Bldg. #58 -----	E-14
Construction Battalion Unit Site Plan, Bldg. #745 -----	E-15
Fuels Branch Site Plan, Bldg. #90 -----	E-16
Typical Hot Refuel Pad -----	E-17
Jet Engine Test Cells Site Plan, Bldg. #175 & 176 -----	E-18
Ground Support Equipment Site Plan, Bldg. #179 -----	E-19
Industrial Waste Treatment Facility Site Plan, Bldg. #60 -----	E-20
Control Tower Generator Room Site Plan, Bldg. #1 -----	E-21
Field Lighting Vault Generator Site Plan, Bldg. #3 -----	E-22
Approach Lighting Vault Site Plan, Bldg. #468 -----	E-23
Telephone Exchange Building Site Plan, Bldg. #80 -----	E-24
Area Surveillance Radar Site Plan, Bldg. #450 -----	E-25
Receiver Facility Site Plan, Bldg. #464 -----	E-26
Hazardous Waste Area Site Plan, Bldg. #44 & 45 -----	E-27
Transmitter Facility Site Plan, Bldg. #462 -----	E-28
Tacan Facility Site Plan, Bldg. #461 -----	E-29
32L Precision Approach Radar Site Plan, Bldg.#466 -----	E-30
32R Precision Approach Radar Site Plan, Bldg. #467 -----	E-31
Telephone Exchange Site Plan, Bldg. #740 -----	E-32
Aero Club Fuel Tank Site Plan, Bldg. #184 -----	E-33
Refueling Tank Site Plan -----	E-34



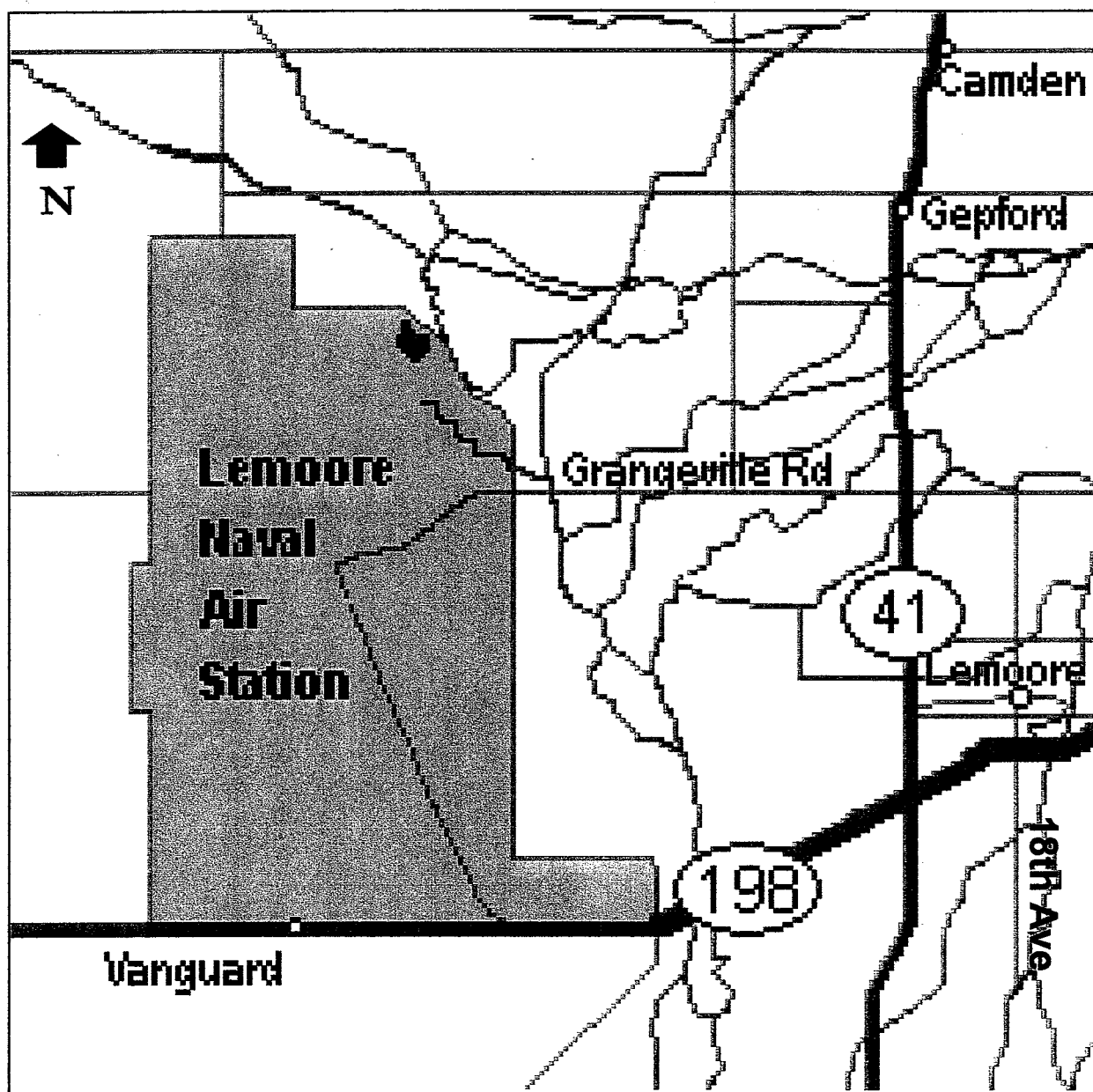
5 0 5 10 20 30
GRAPHIC SCALE IN MILES



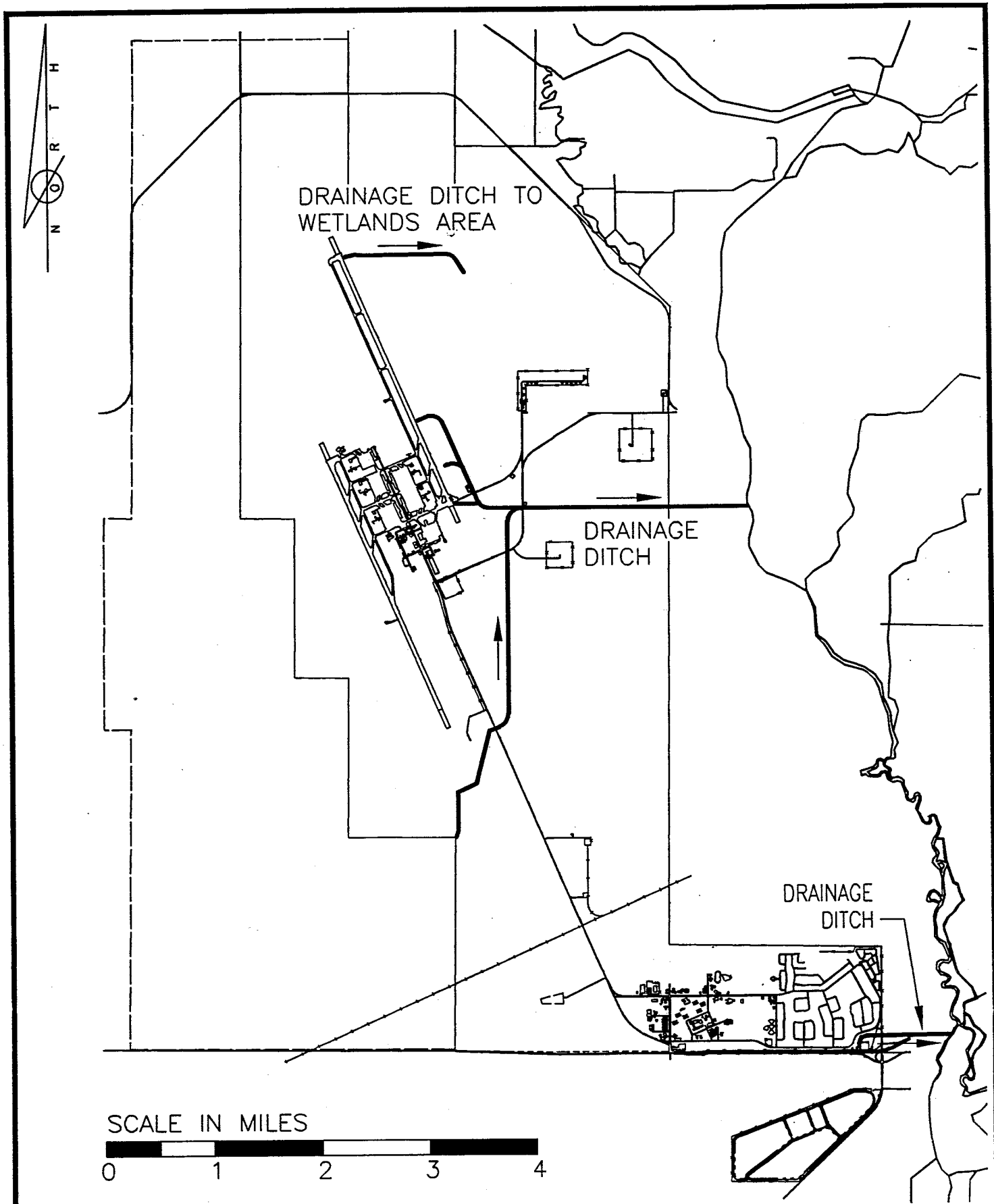
LOCATION MAP



AREA MAP, NAS LEMOORE



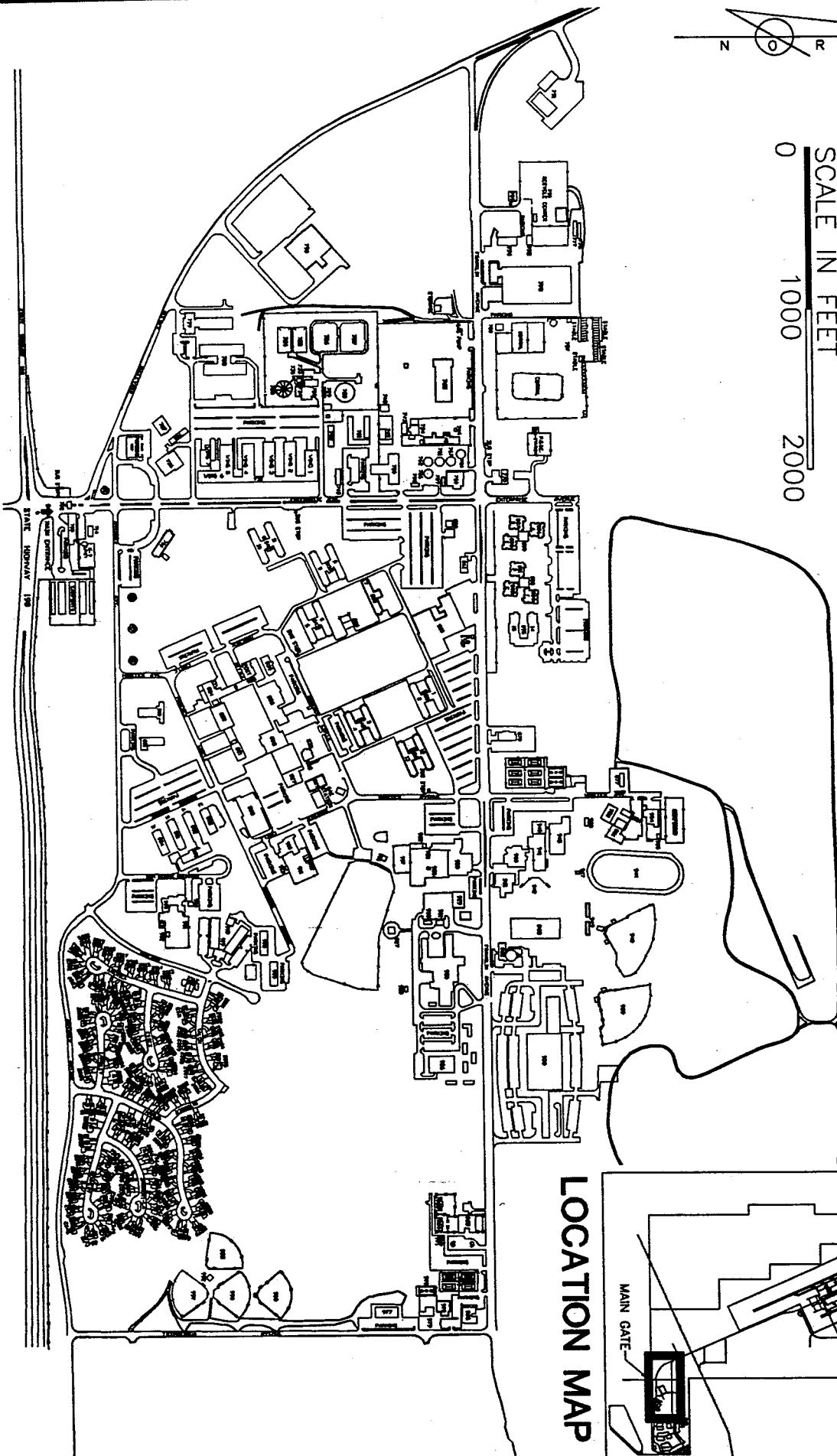
Local Area Map, NAS Lemoore



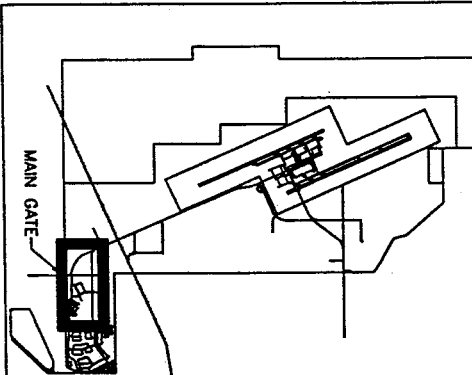
NAS LEMOORE SURFACE DRAINAGE DITCHES



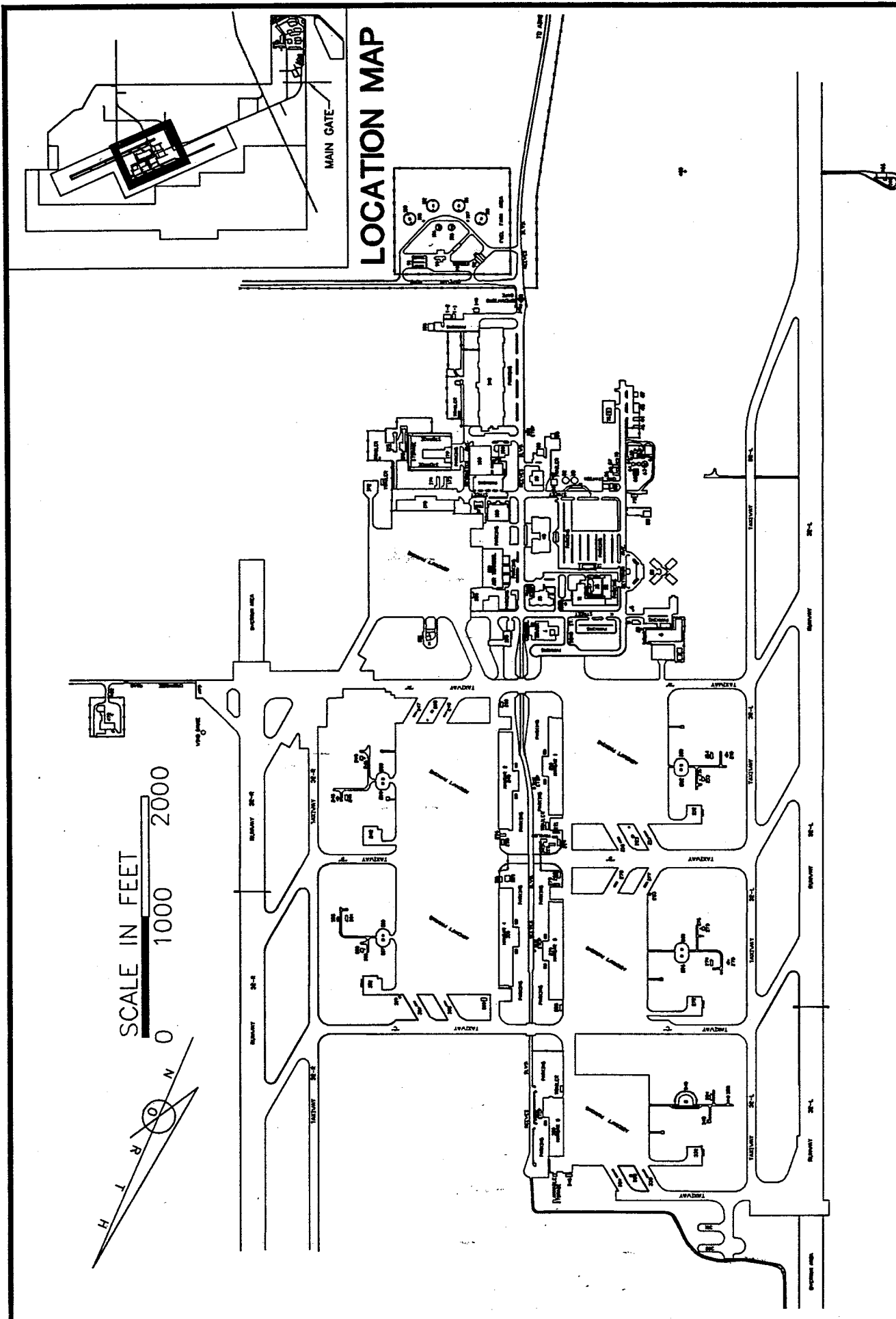
SCALE IN FEET
0 1000 2000



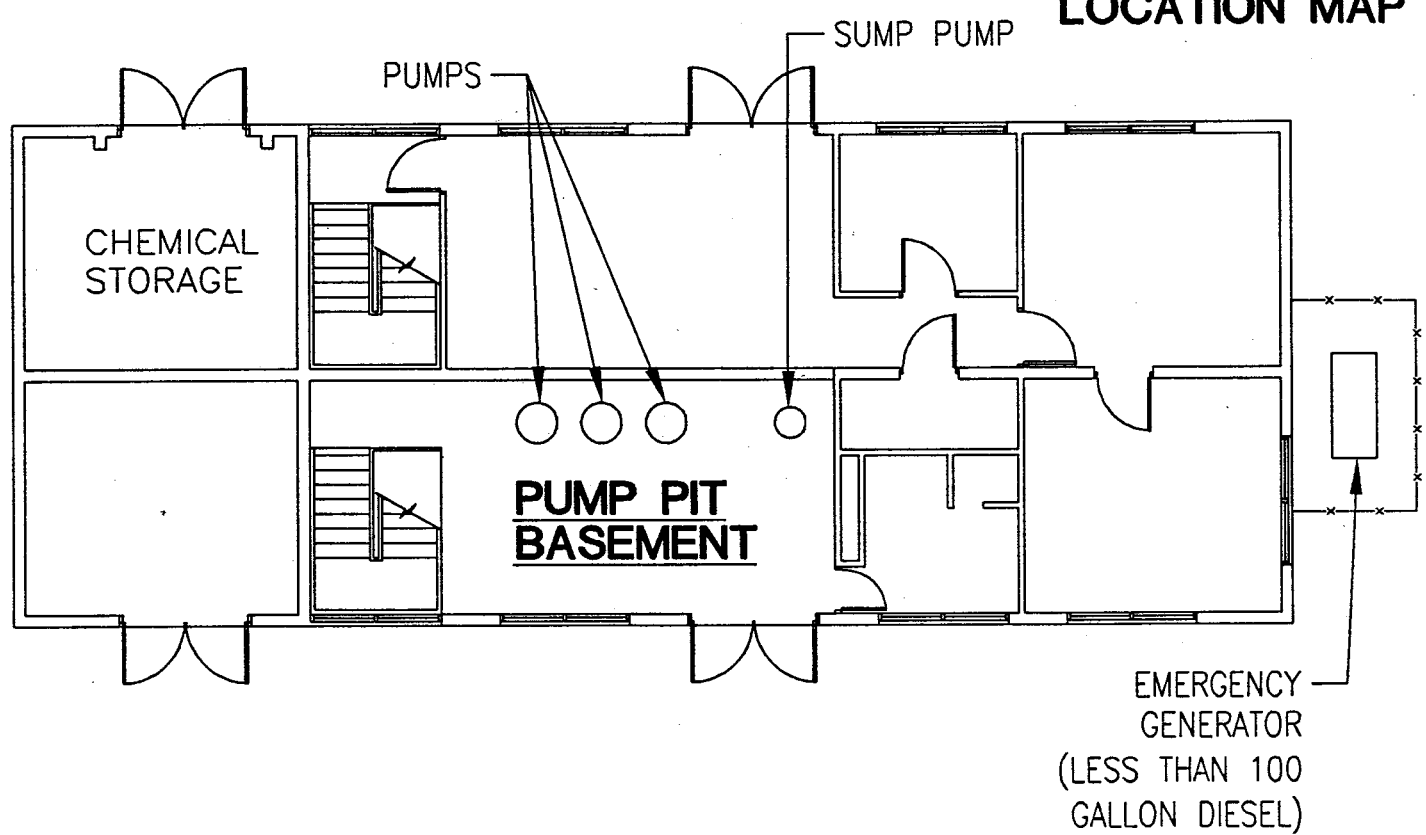
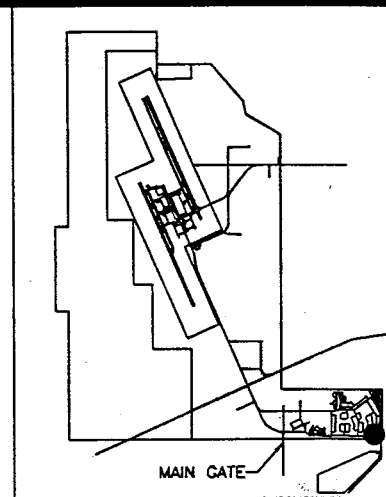
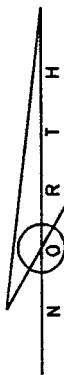
LOCATION MAP



ADMINISTRATION MAP, NAS LEMOORE



OPERATIONS AREA MAP, NAS LEMOORE

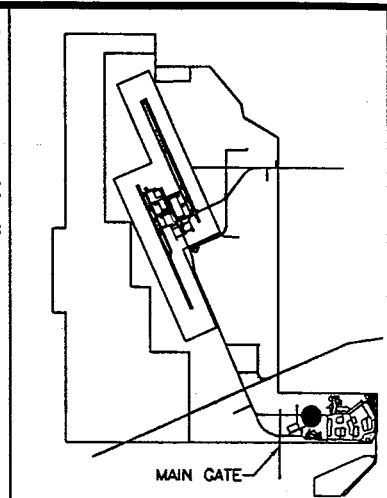


SEWAGE PUMP STATION SITE PLAN, BUILDING 980



930

STATION HOSPITAL
AND DENTAL CLINIC



LOCATION MAP

TRAILER

MACHINERY AREA

UB'S

UB'S

EMERGENCY GENERATOR



GENERATOR

928

DIESEL FUEL
STORAGE TANK
(500 GALLON)

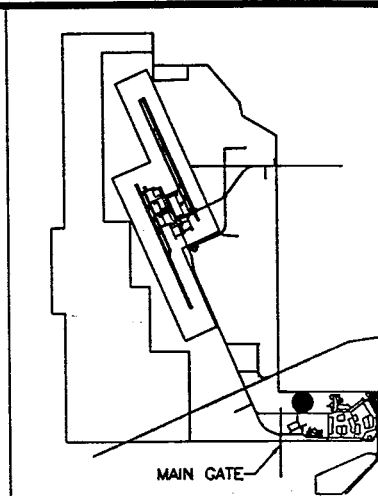
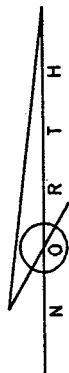
UB

FUEL SUPPLY
PIPING

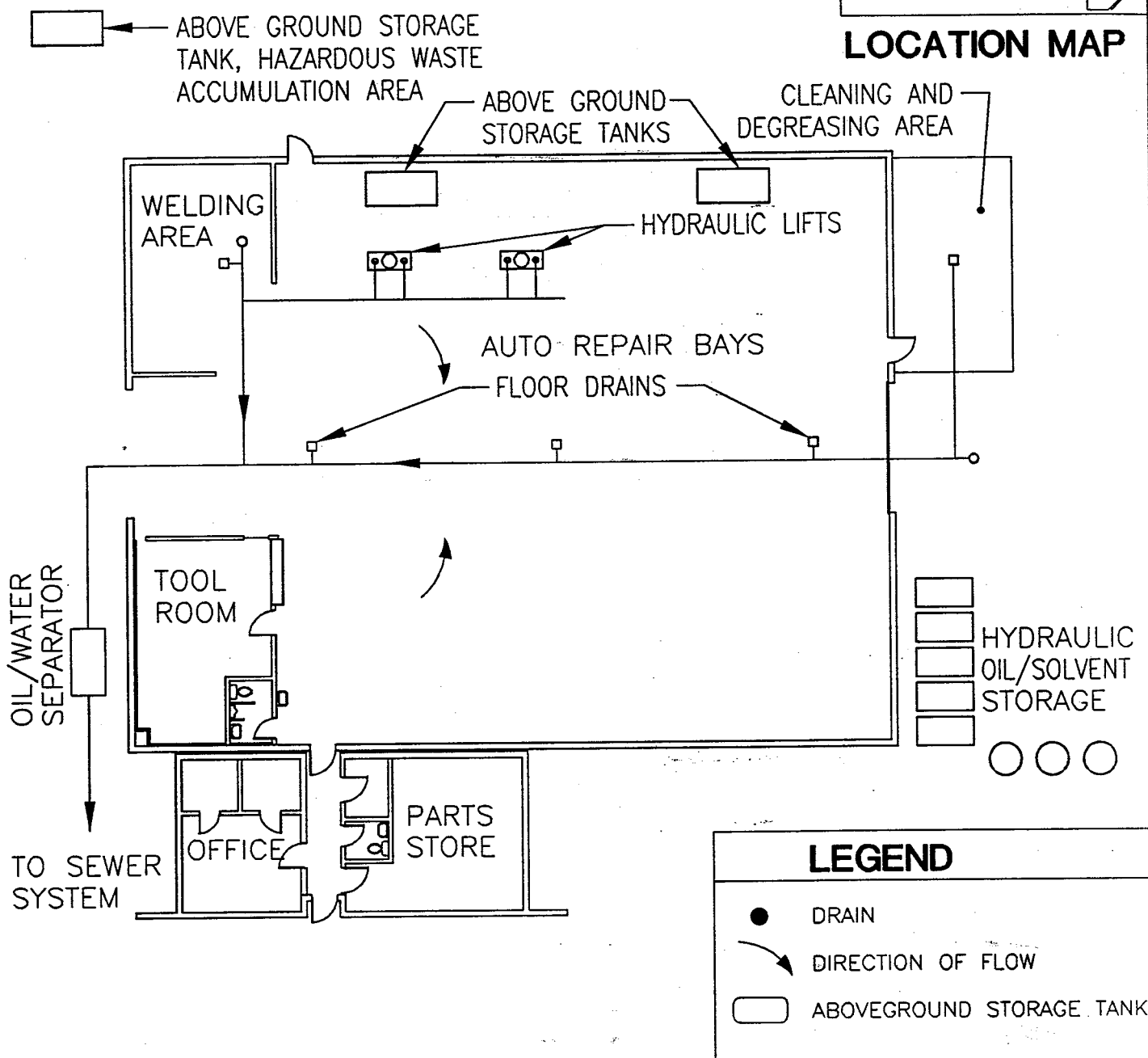
LEGEND

- DRAIN
- DIRECTION OF FLOW
- ABOVEGROUND STORAGE TANK

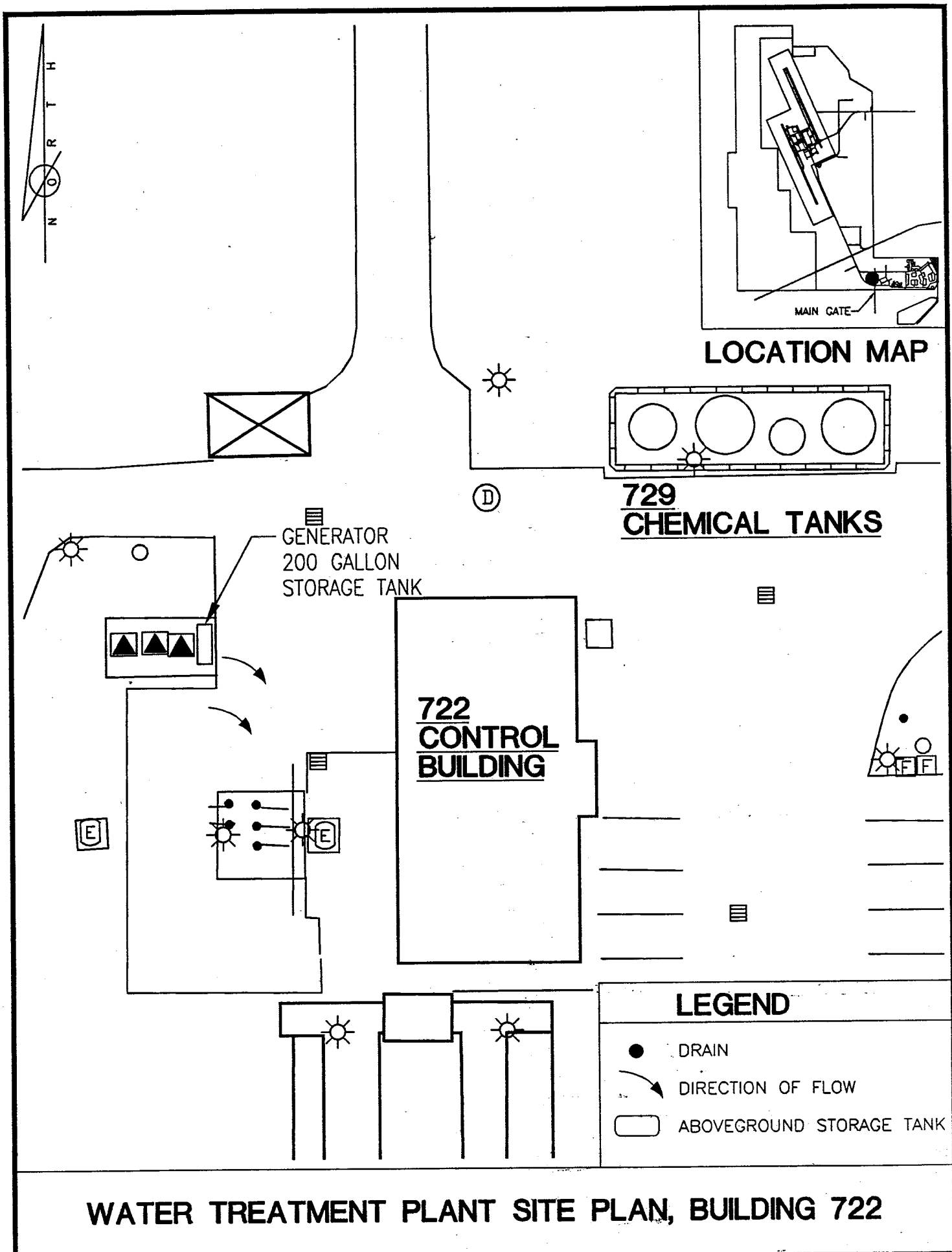
HOSPITAL EMERGENCY GENERATORS SITE PLAN, BLDG. 930

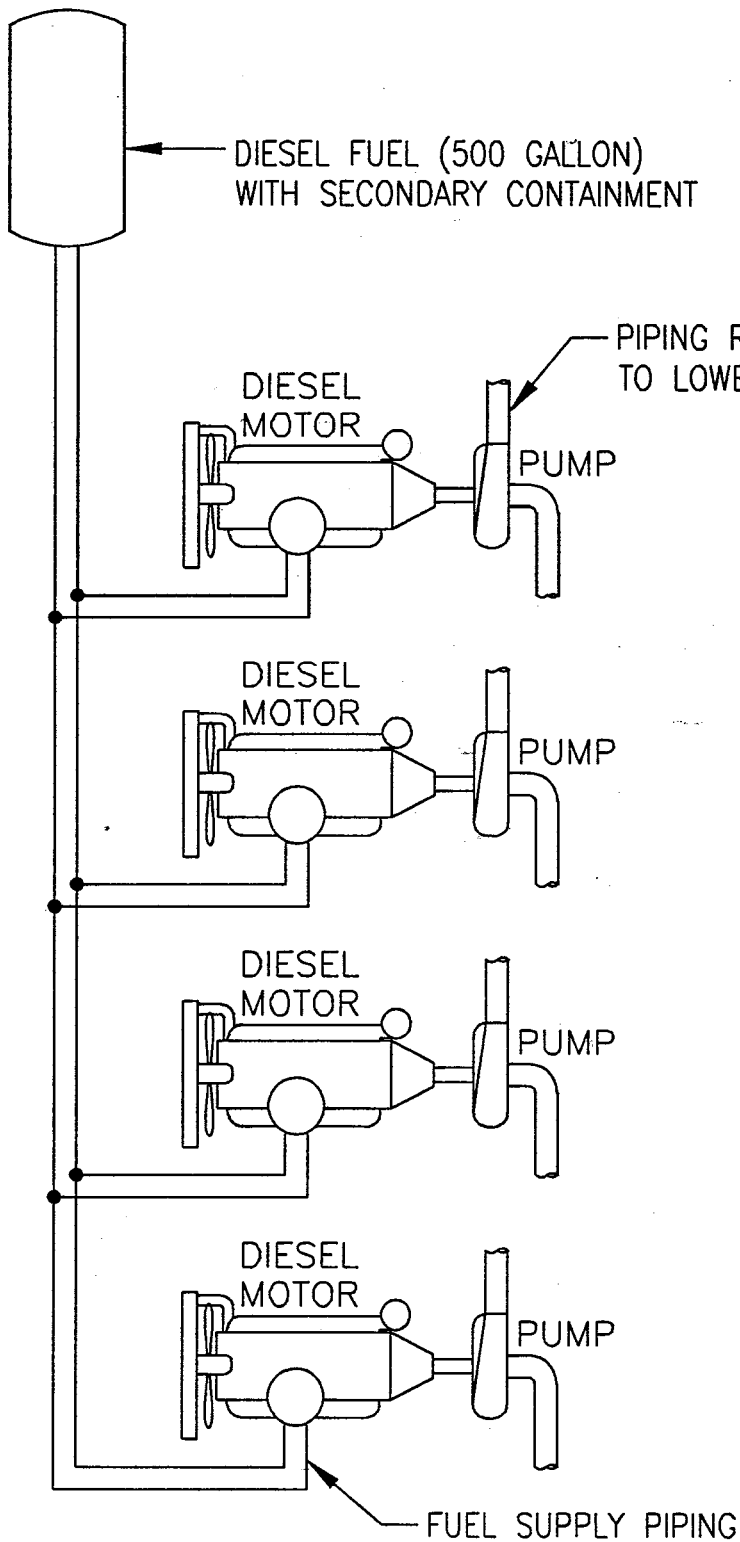


LOCATION MAP



AUTO HOBBY SHOP SITE PLAN, BUILDING 954



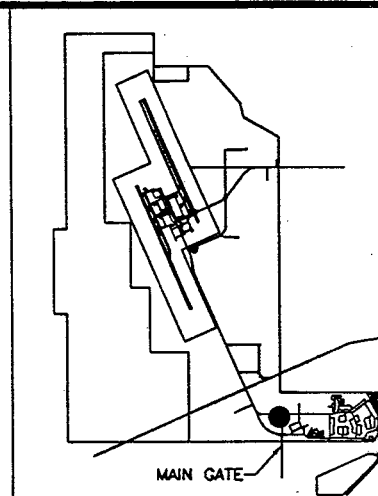


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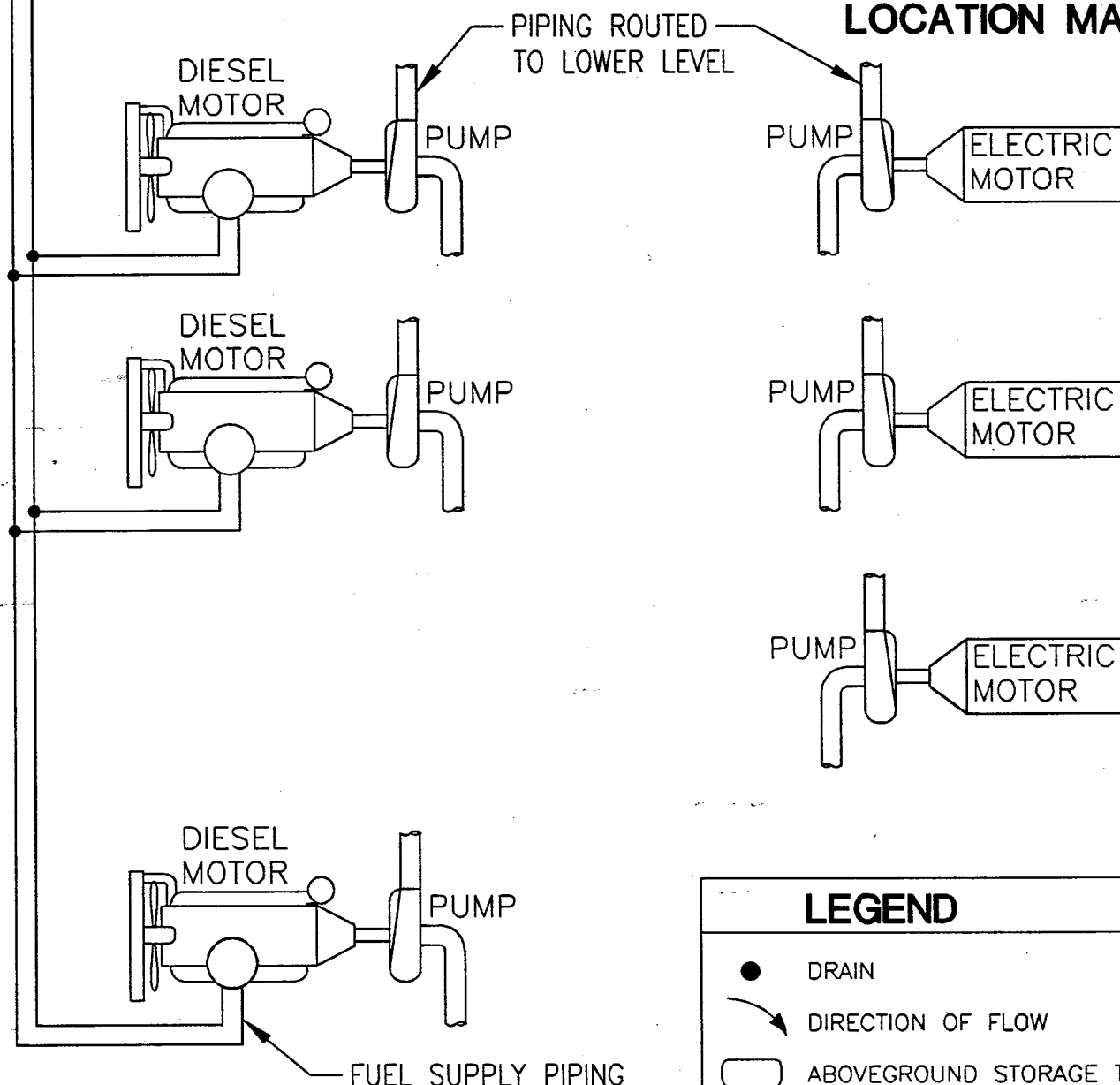
- DRAIN
- DIRECTION OF FLOW
- ABOVEGROUND STORAGE TANK

UTILITY PLANT SITE PLAN, BUILDING 50

DIESEL FUEL (500 GALLON)
WITH SECONDARY CONTAINMENT



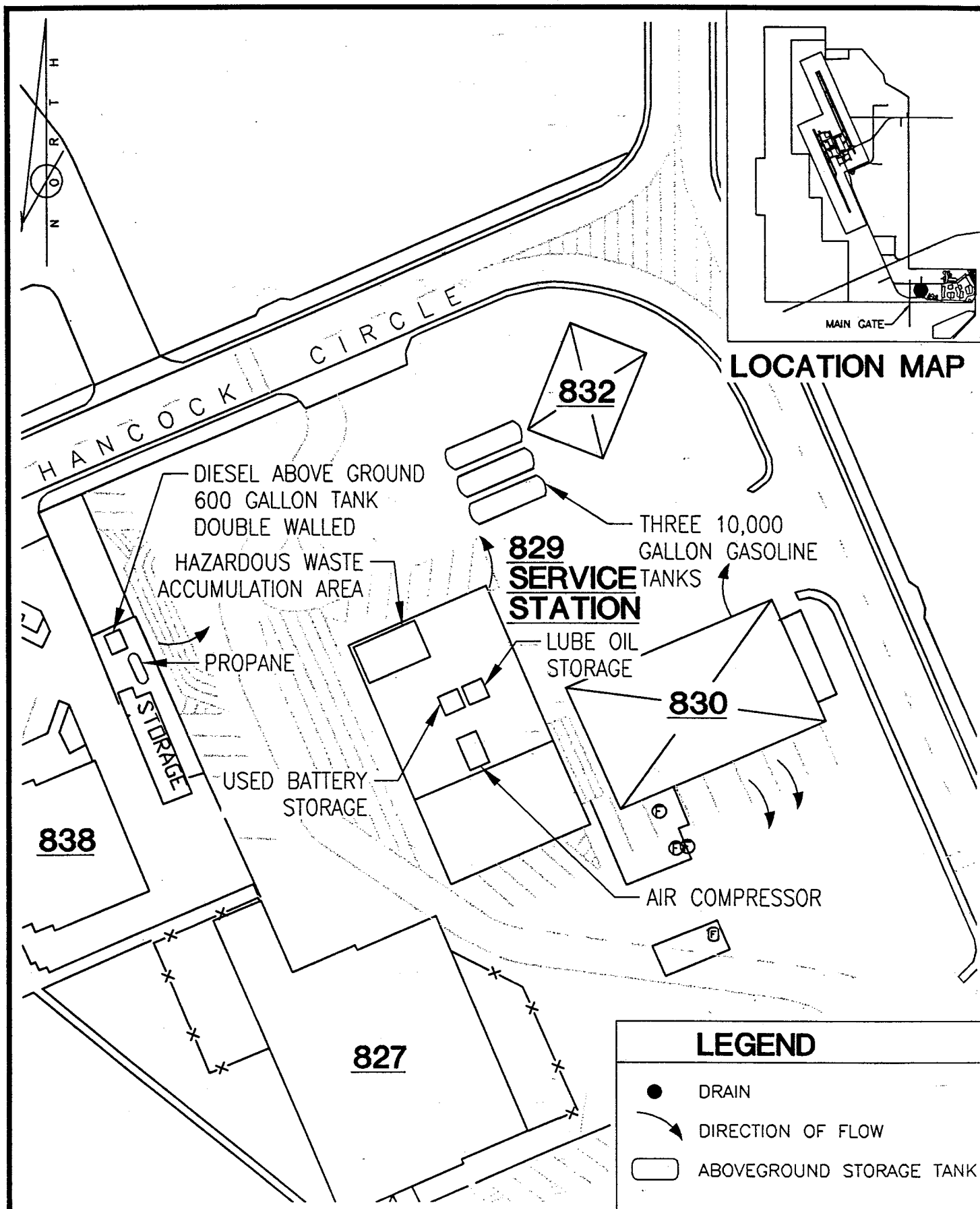
LOCATION MAP



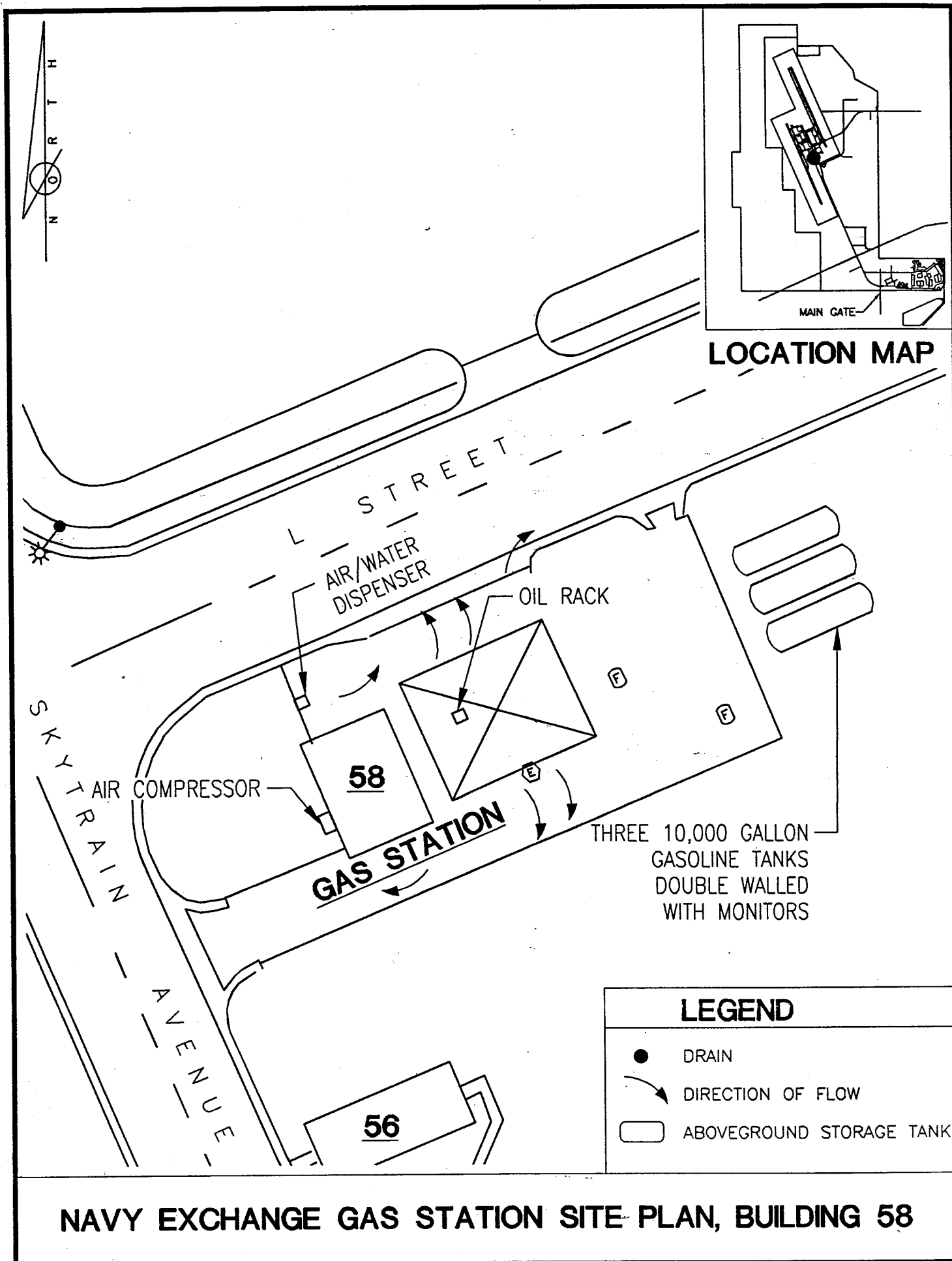
LEGEND

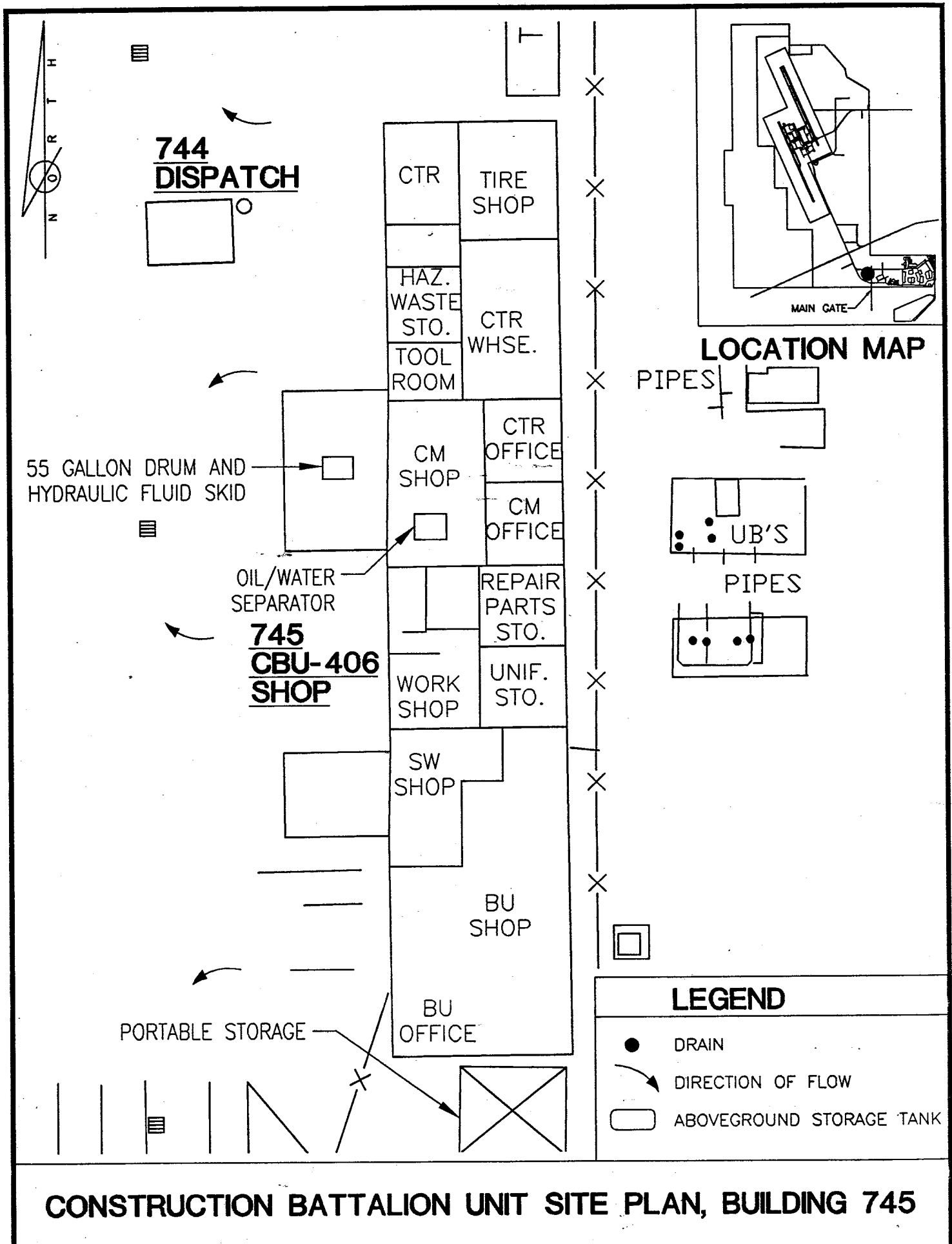
- DRAIN
- DIRECTION OF FLOW
- ABOVEGROUND STORAGE TANK

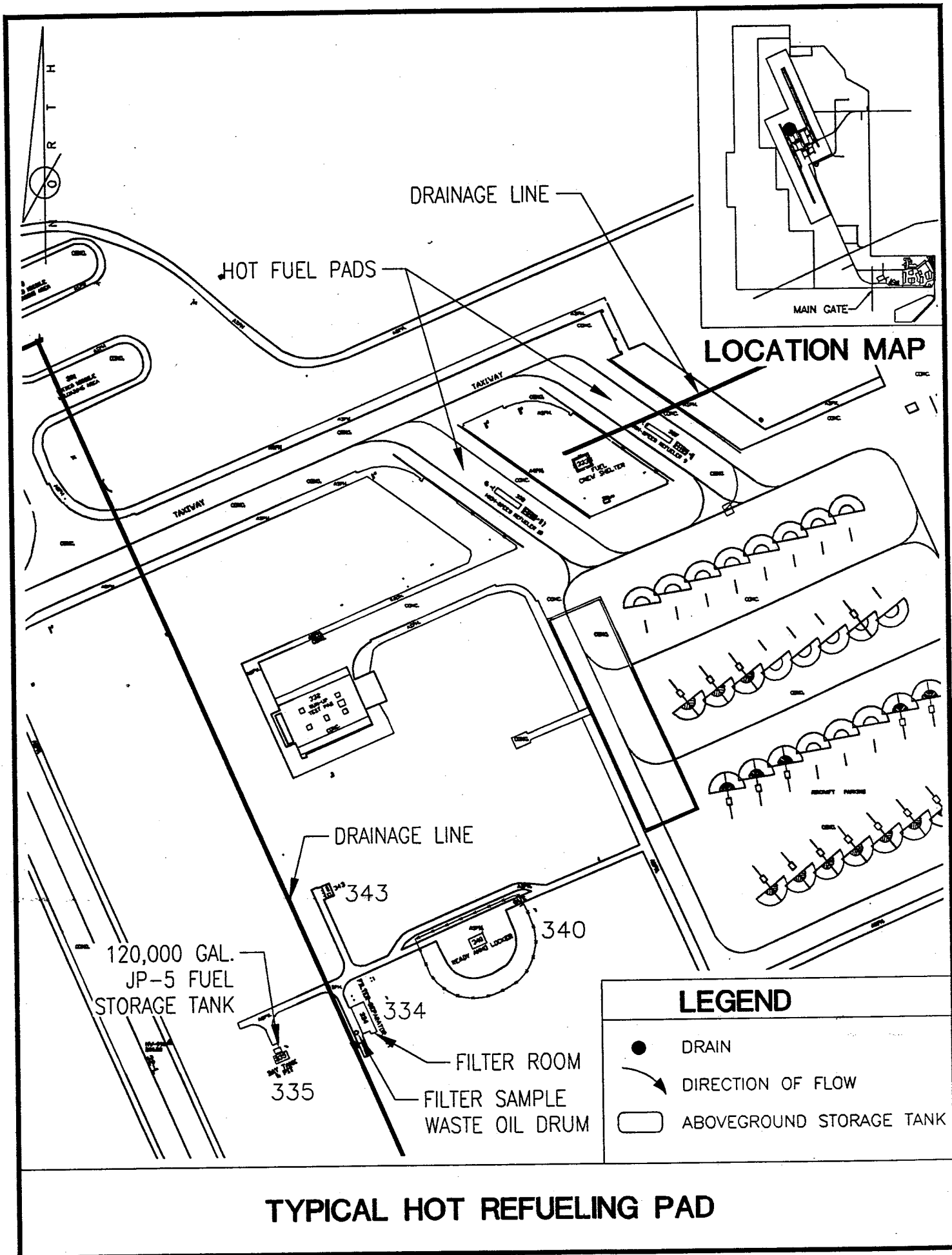
UTILITY PLANT SITE PLAN, BUILDING 760

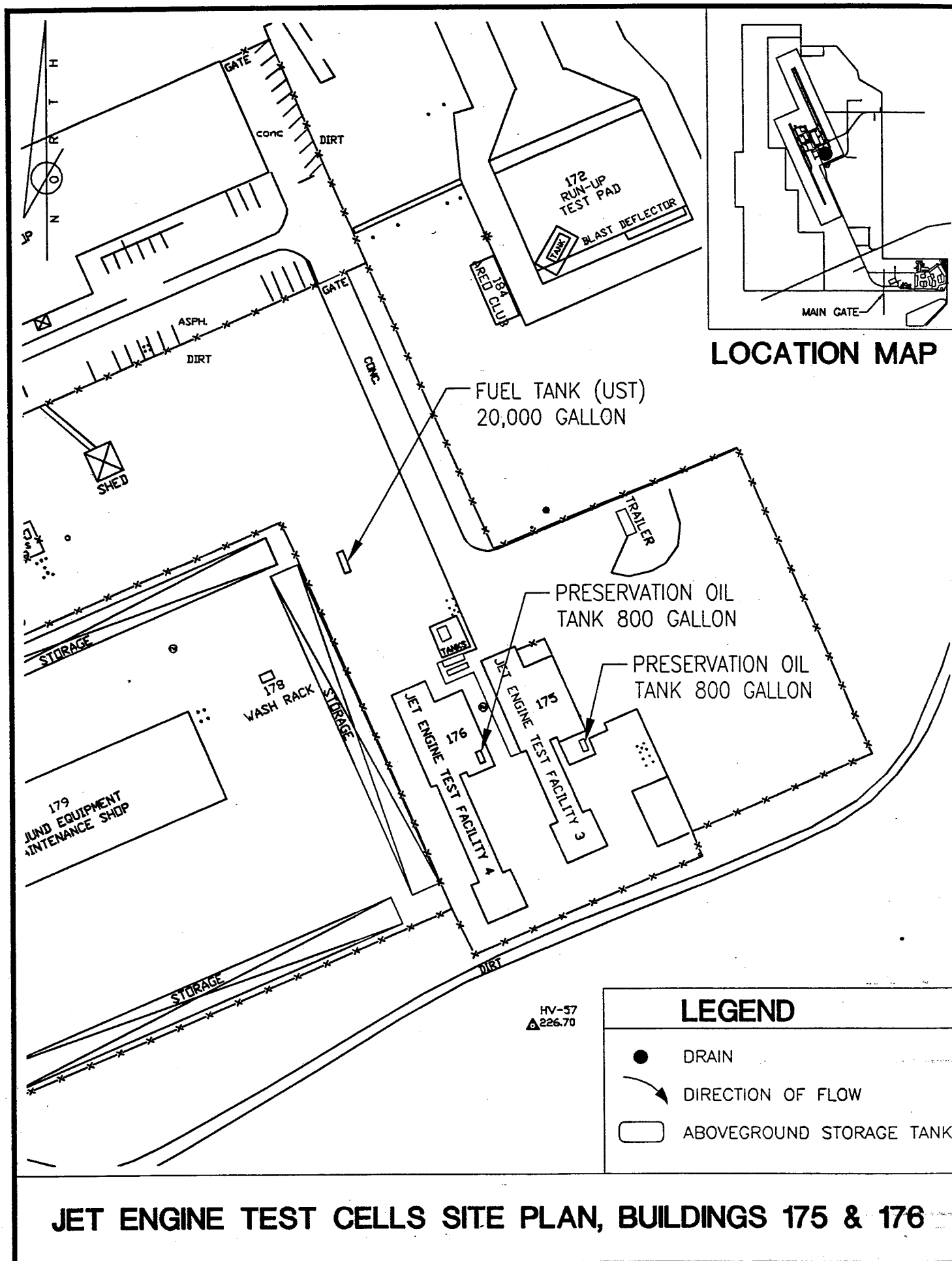


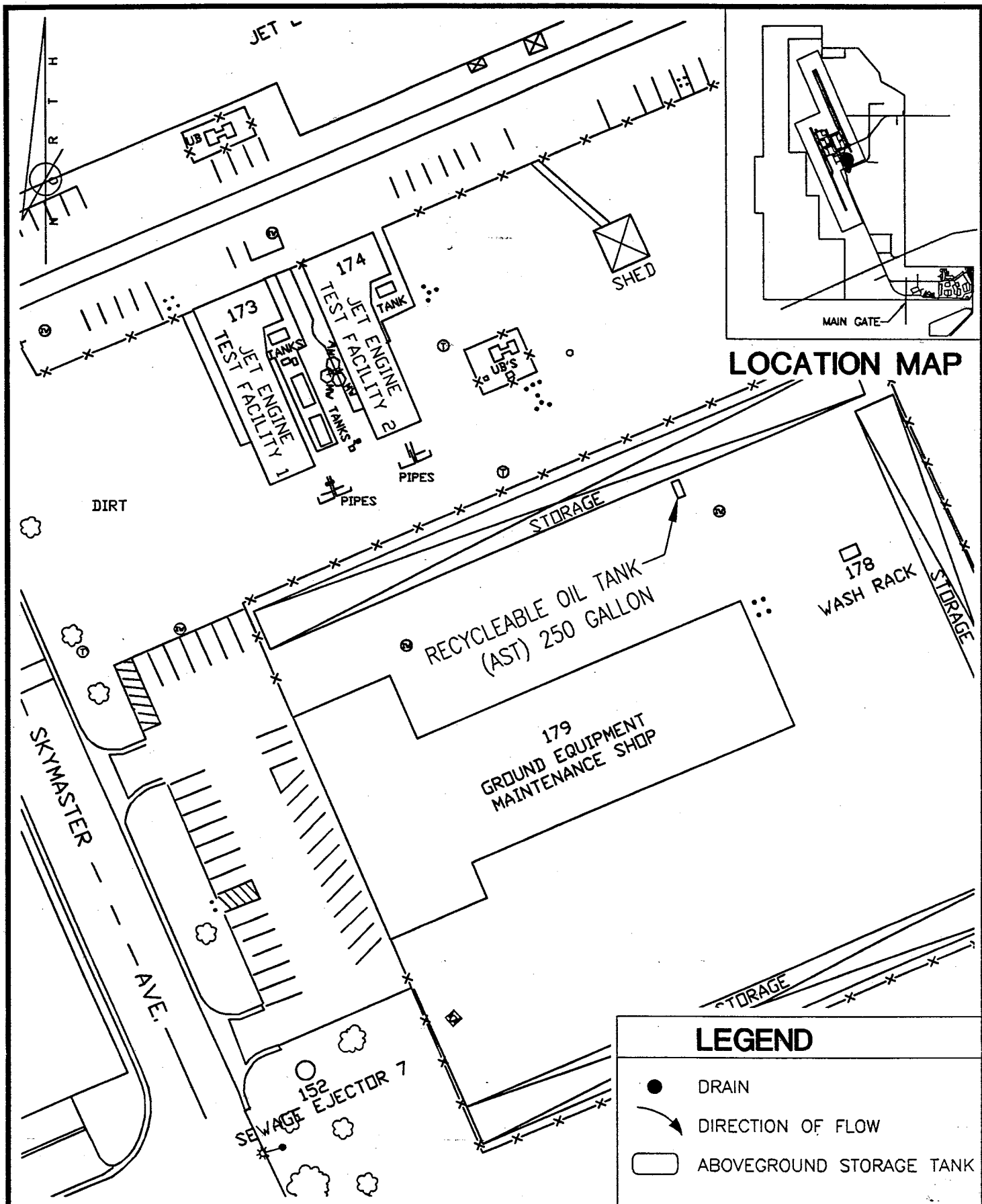
NAVY EXCHANGE SERVICE STATION SITE PLAN, BUILDING 829

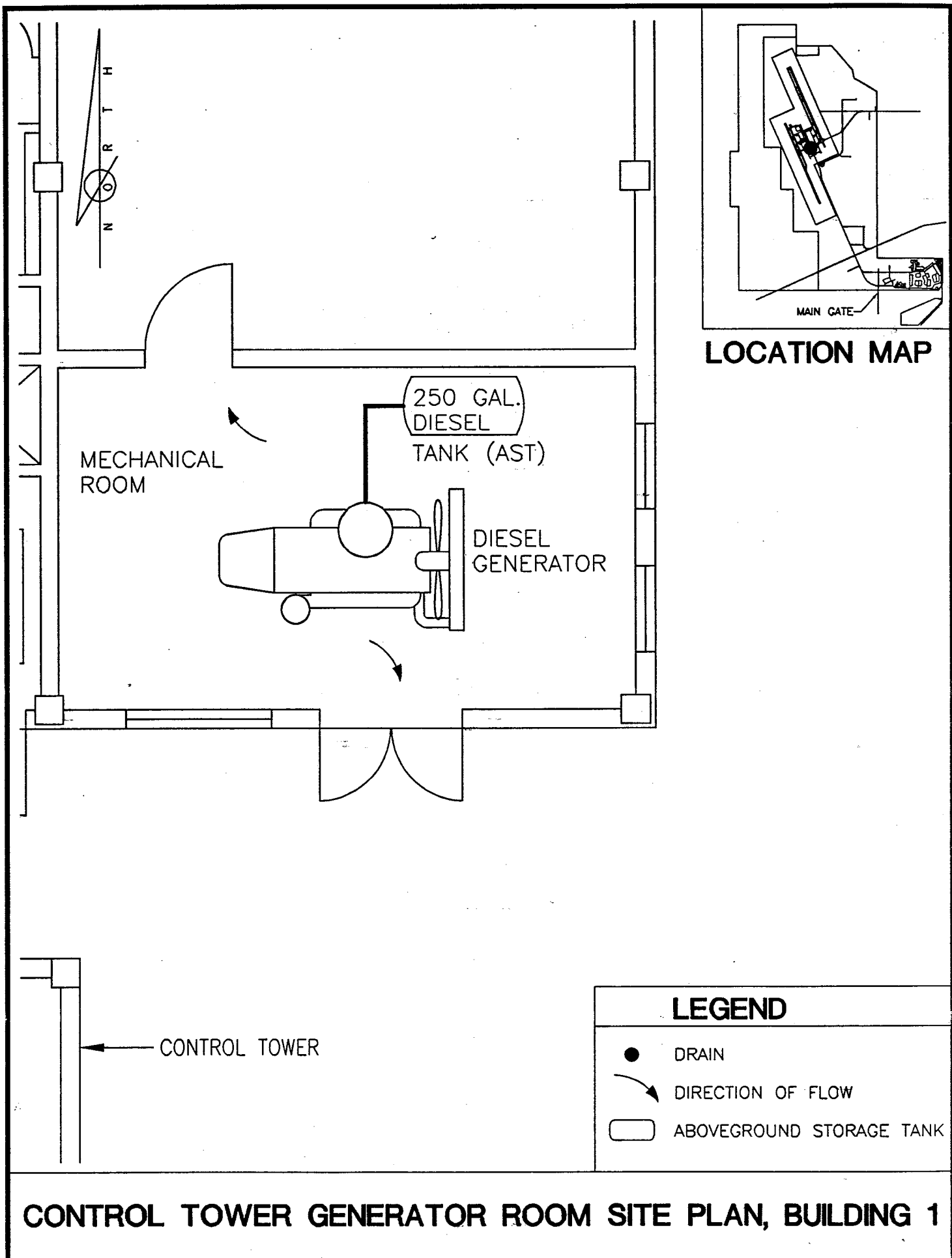


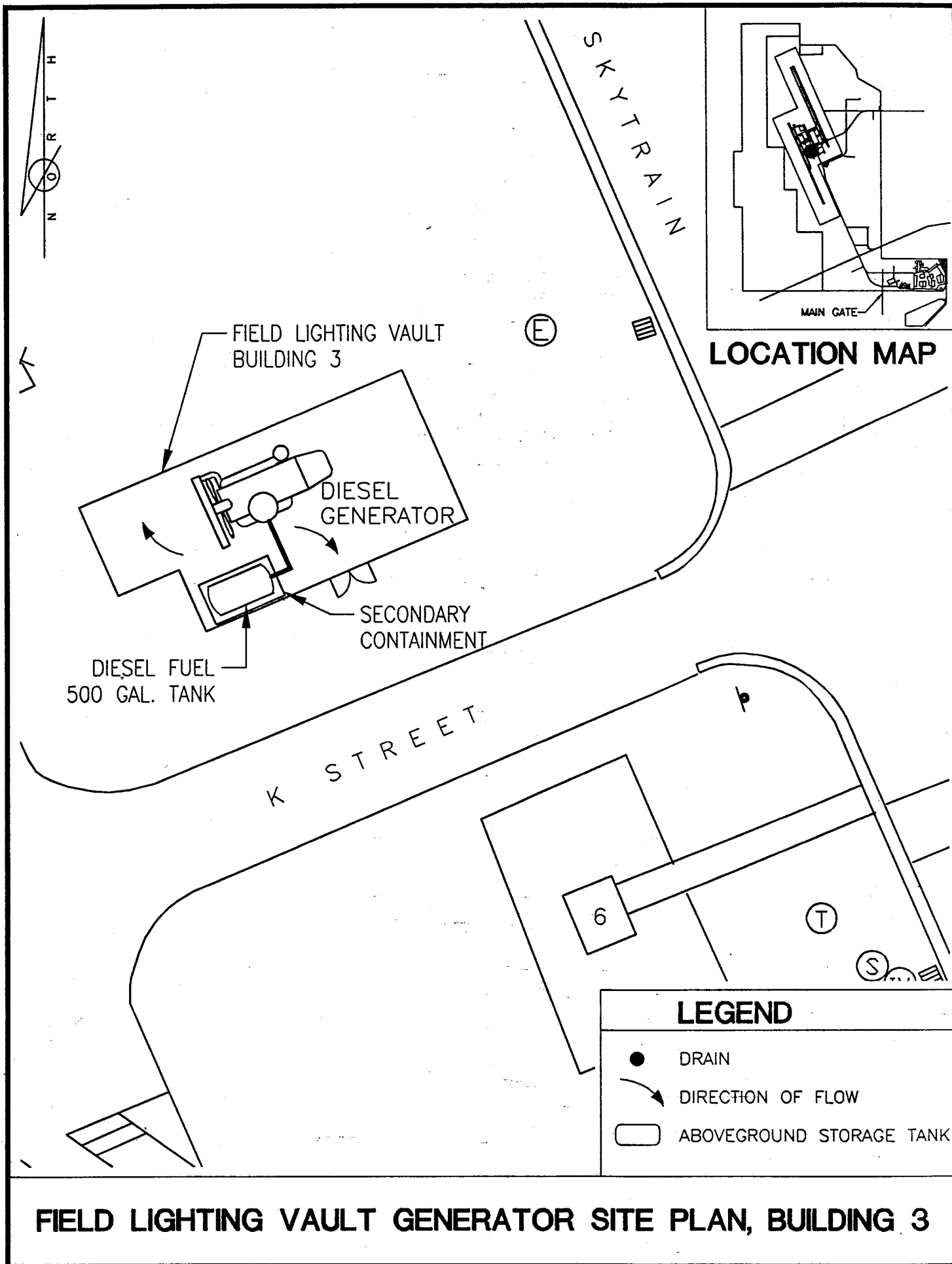




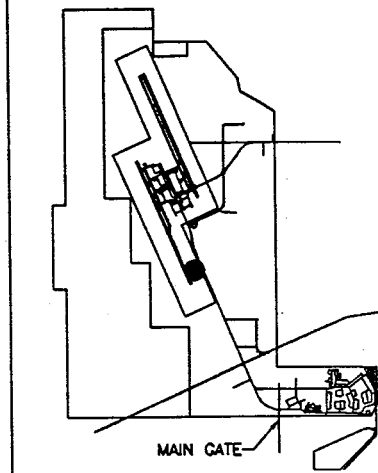
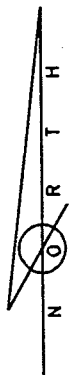




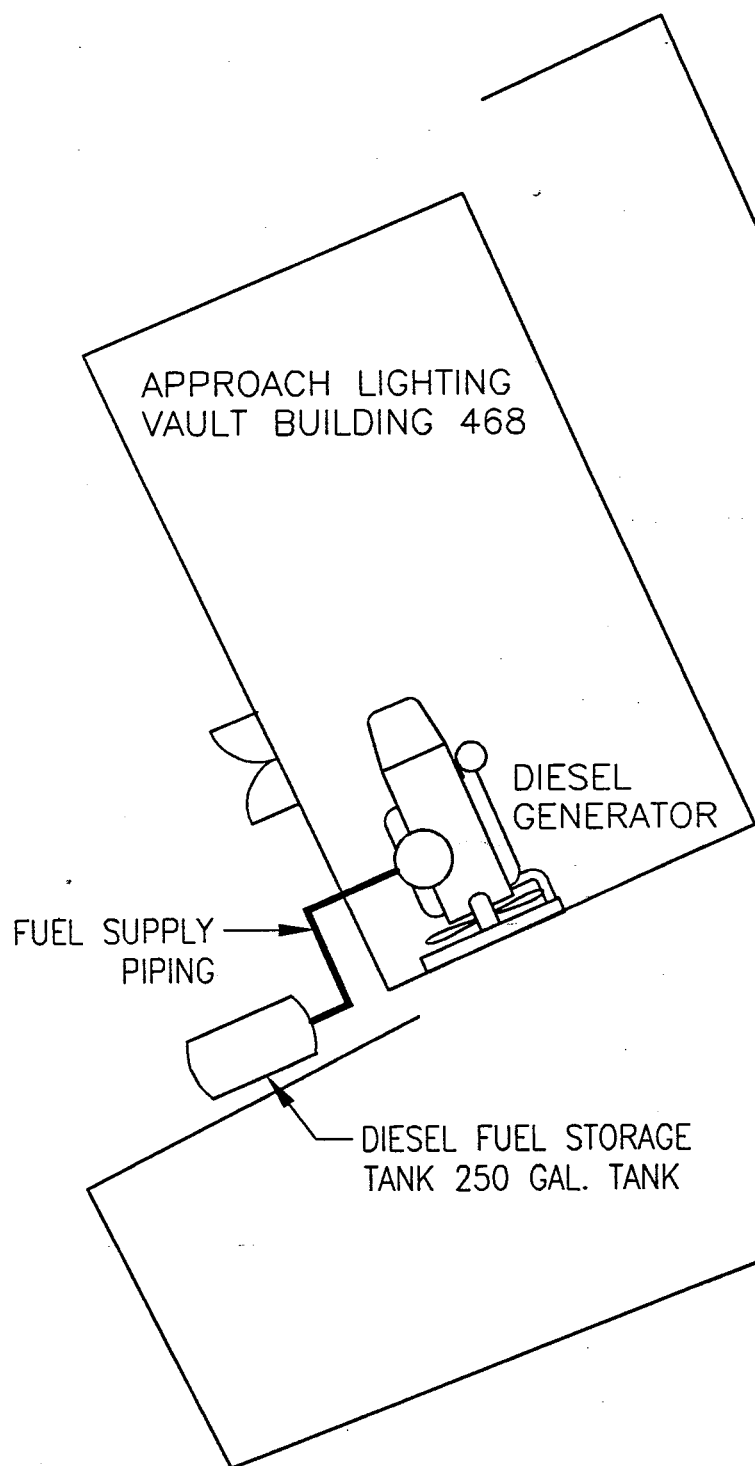




FIELD LIGHTING VAULT GENERATOR SITE PLAN, BUILDING 3



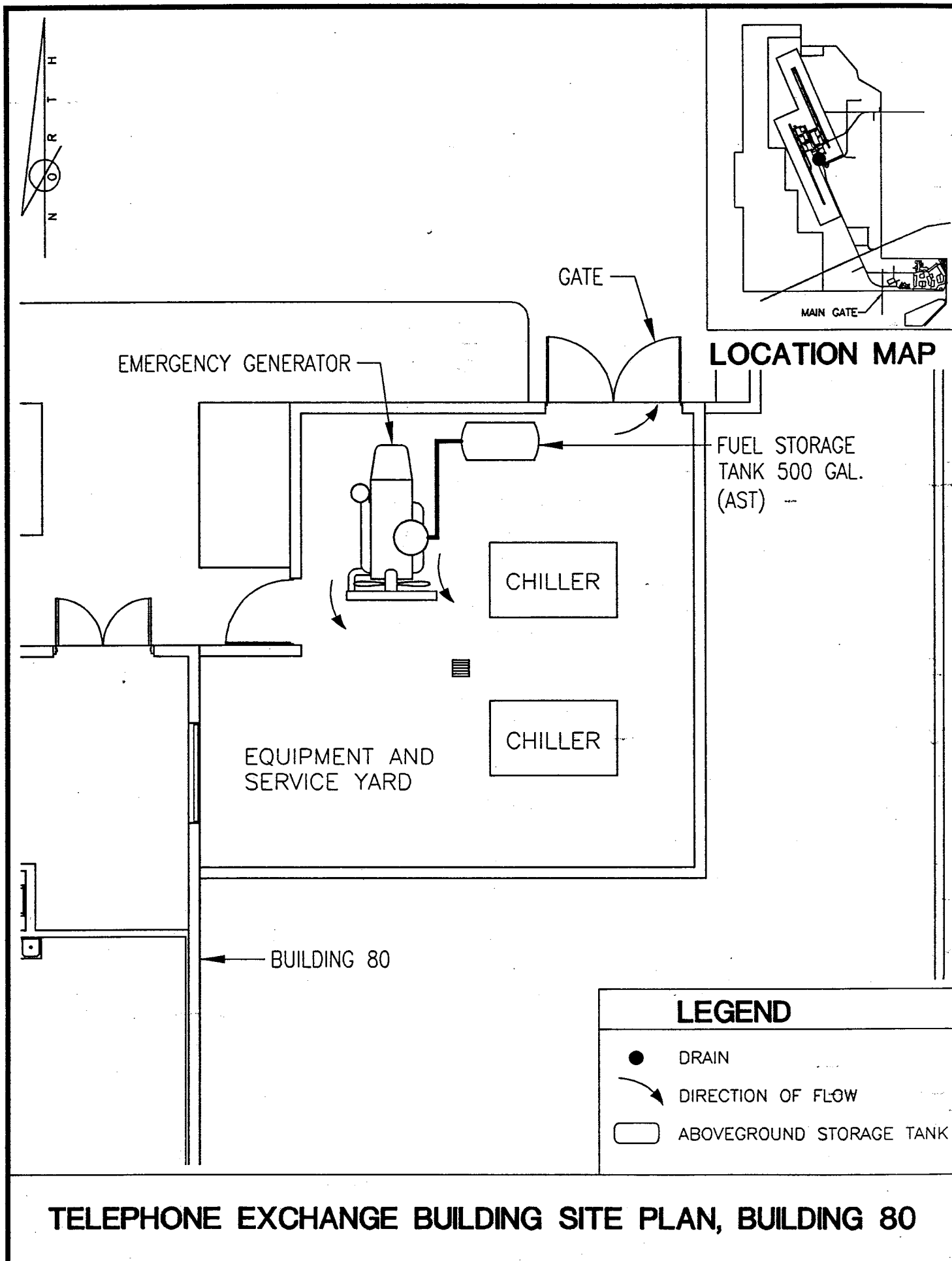
LOCATION MAP

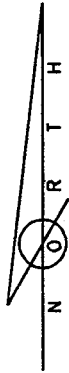


LEGEND

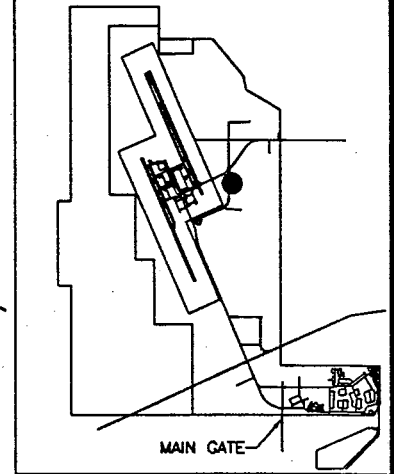
- DRAIN
- DIRECTION OF FLOW
- ABOVEGROUND STORAGE TANK

APPROACH LIGHTING VAULT SITE PLAN, BUILDING 468

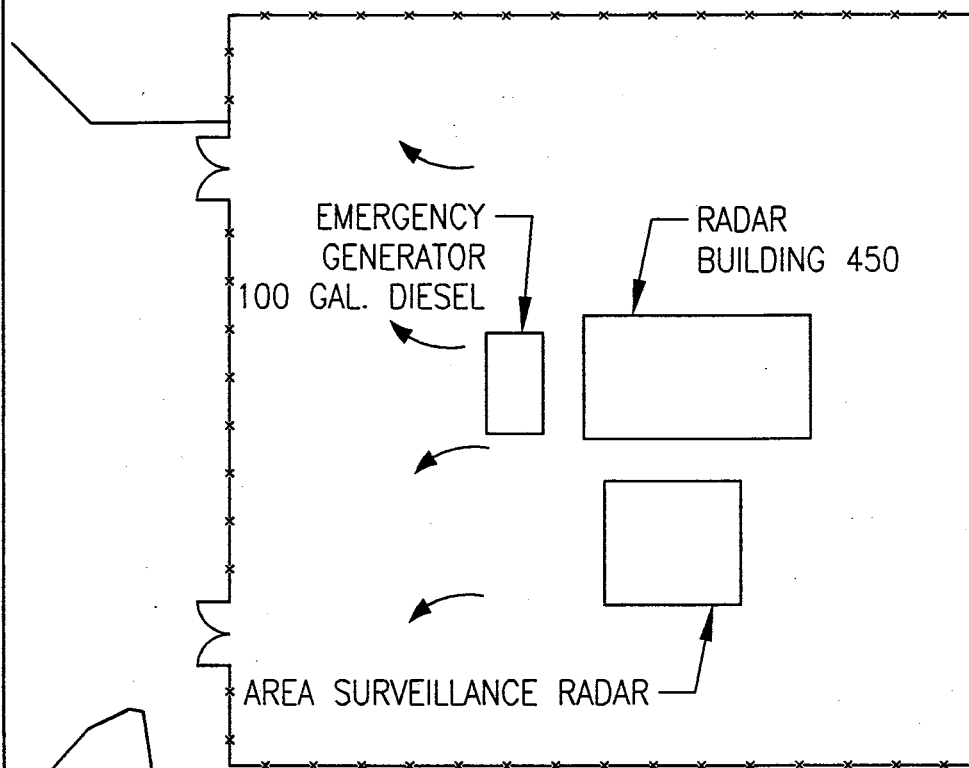




G A T E W A Y R O A D



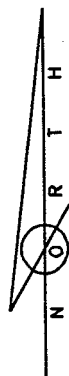
LOCATION MAP



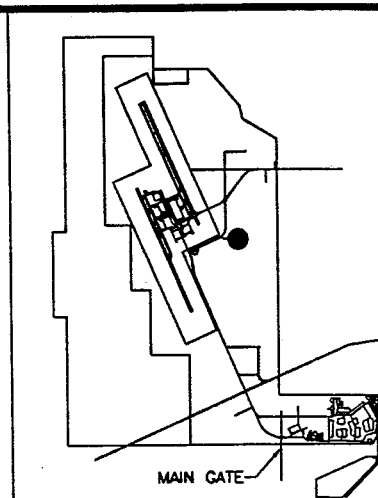
LEGEND

- DRAIN
- ↘ DIRECTION OF FLOW
- ABOVEGROUND STORAGE TANK

AREA SURVEILLANCE RADAR SITE PLAN, BUILDING 450



ANTENNA SYSTEM 480



LOCATION MAP

RECEIVER BUILDING 464

EMERGENCY GENERATOR
75 GALLON DIESEL
FUEL TANK

ACCESS ROAD

LEGEND



DRAIN

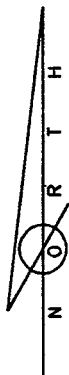


DIRECTION OF FLOW



ABOVEGROUND STORAGE TANK

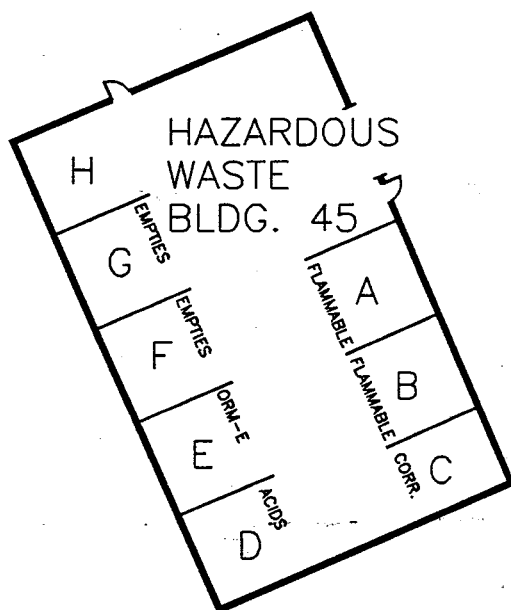
RECEIVER FACILITY SITE PLAN, BUILDING 464



SKYTRAIN

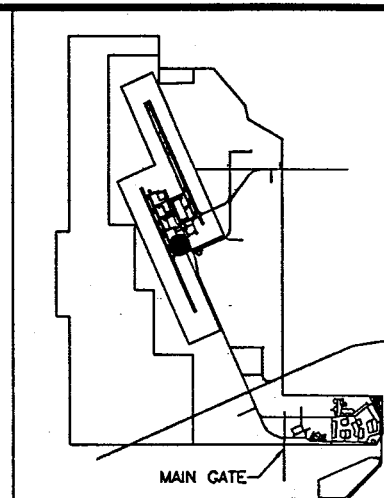


OFFICE
BLDG. 44



HAZARDOUS
WASTE
BLDG. 45

LESS THAN 90 DAY STORAGE

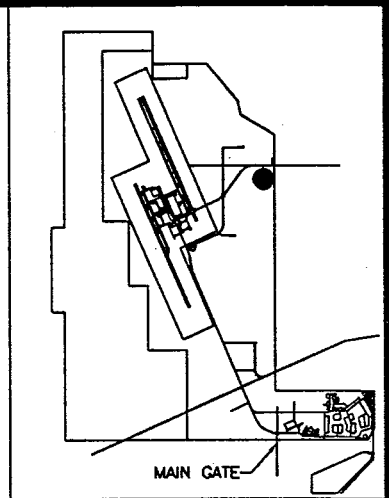
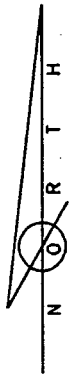


LOCATION MAP

LEGEND

- DRAIN
- DIRECTION OF FLOW
- ABOVEGROUND STORAGE TANK

HAZARDOUS WASTE AREA SITE PLAN, BUILDING 44 & 45



LOCATION MAP

ANTENNA SYSTEM 481

TRANSMITTER
FACILITY
BUILDING 462

BUILDING 463

EMERGENCY GENERATOR
200 GAL. DIESEL
FUEL TANK

LEGEND



DRAIN

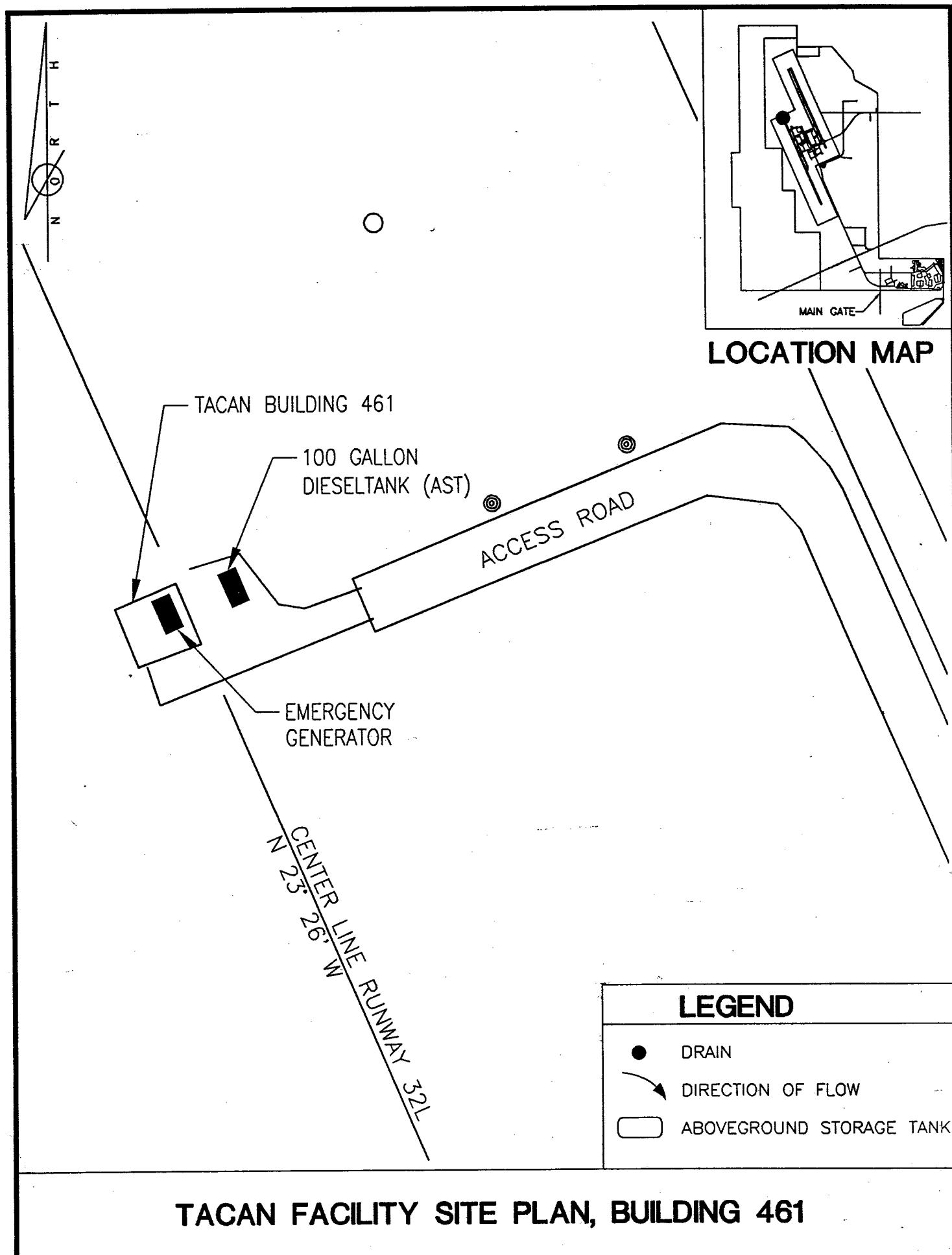


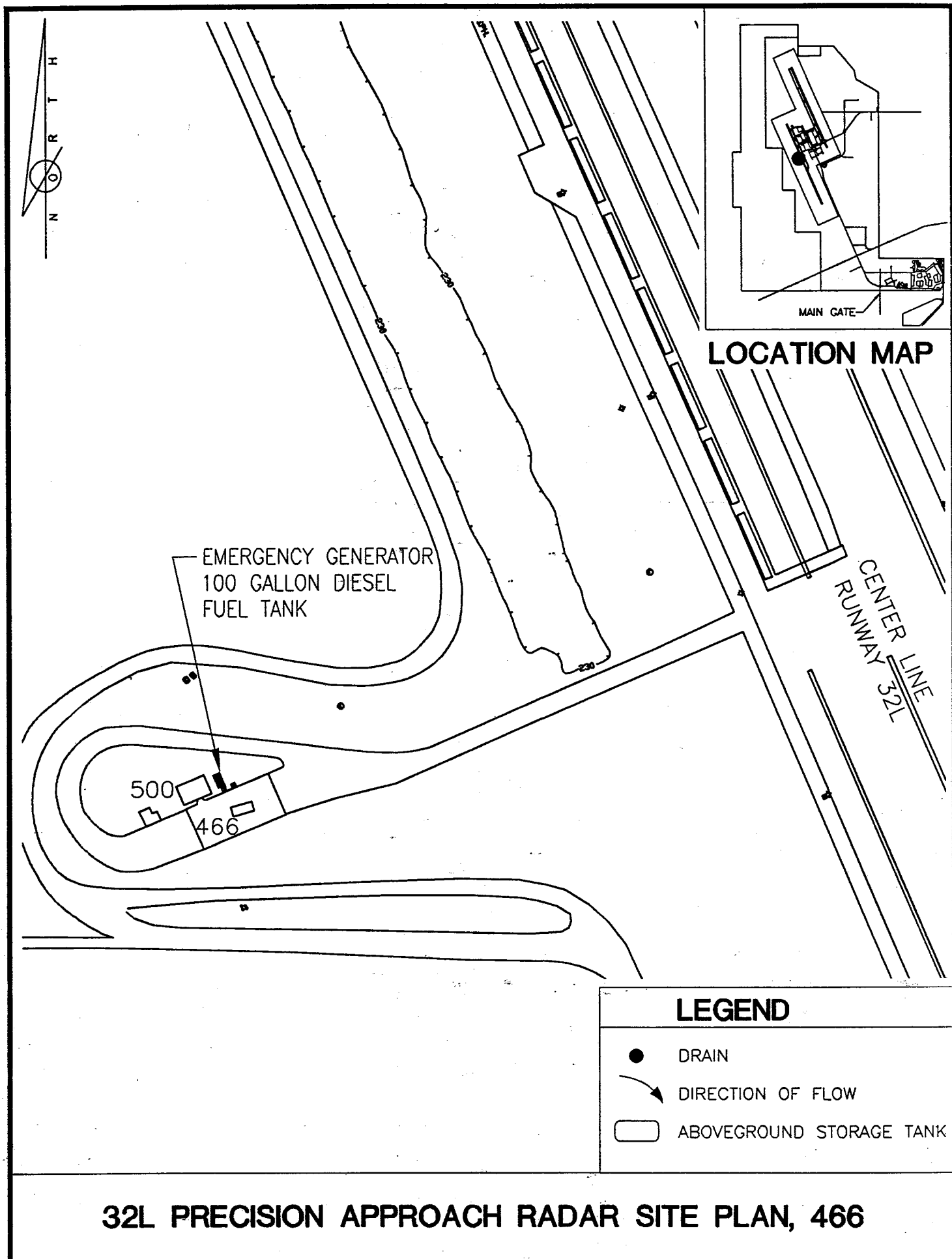
DIRECTION OF FLOW

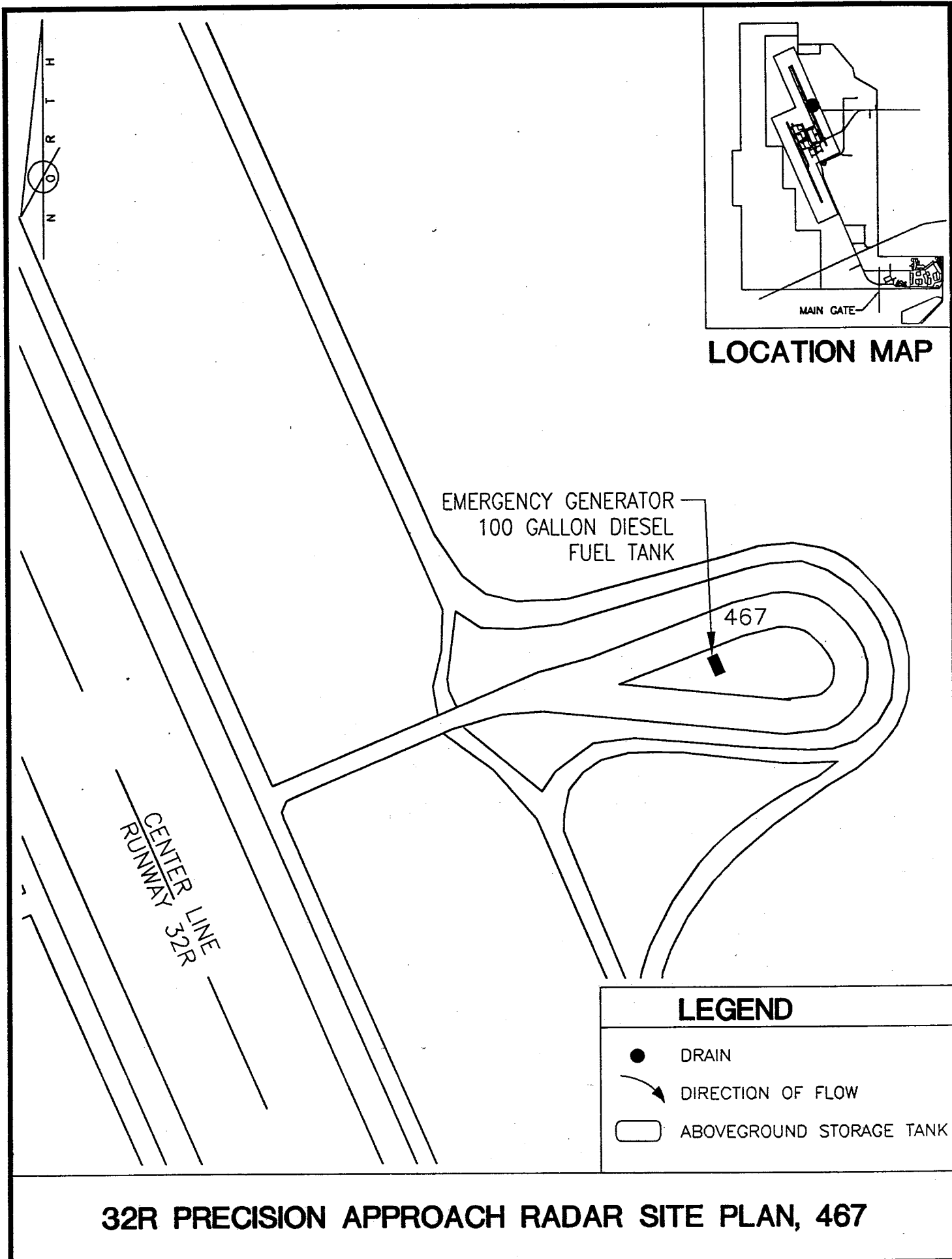


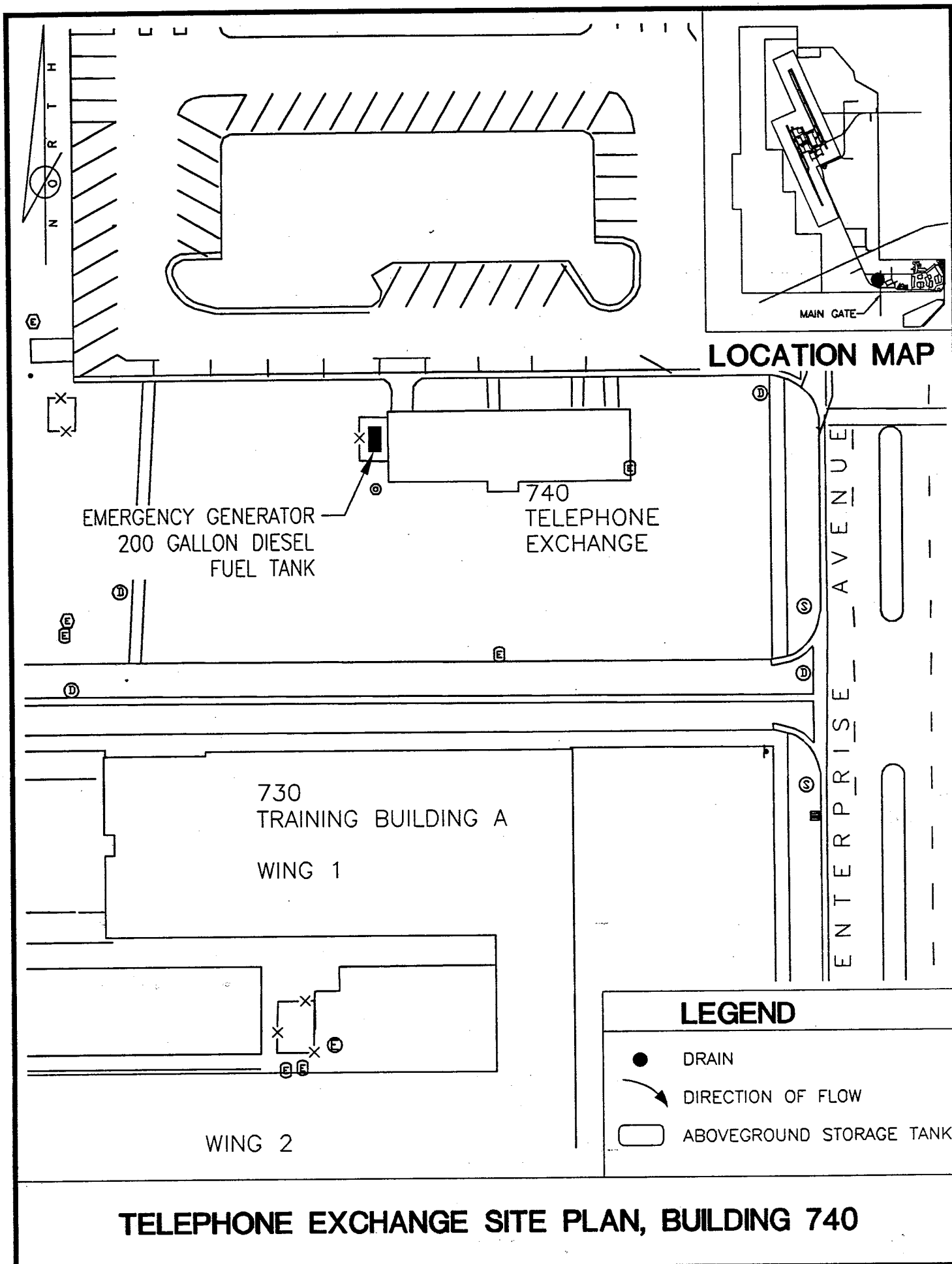
ABOVEGROUND STORAGE TANK

TRANSMITTER FACILITY SITE PLAN, BUILDING 462









TELEPHONE EXCHANGE SITE PLAN, BUILDING 740

